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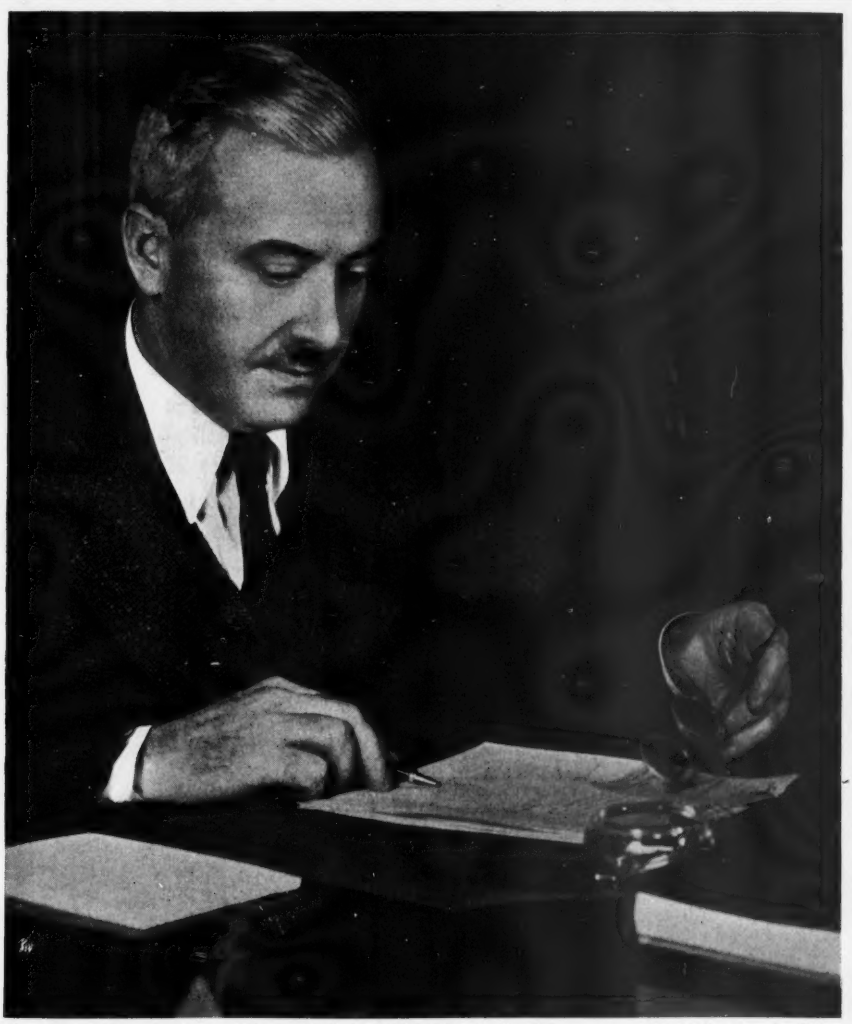
Hospital Management

The News and Technical Journal of Administration



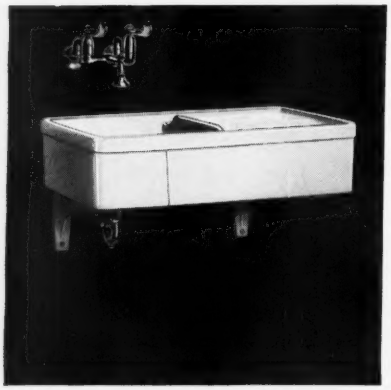
Dr. Thomas Parran, Surgeon General of the U.S.P.H.S., heads the program of coordinating facilities for the maintenance of the nation's health in the plans for national defense preparedness. See page 11.

July, 1940

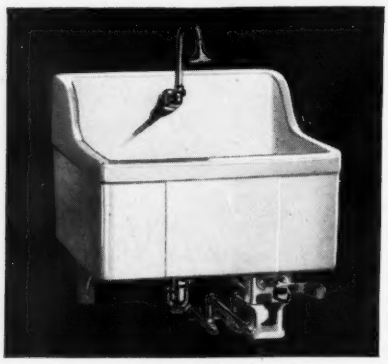
Role of U. S. P. H. S. in Defense Plans» » Hospital Construction Bill Still Before House » » Analysis of Essentials of Hospital Service

Welcome News for Every Hospital

CRANE ANNOUNCES DURACLAY!



C-5613 Riverside *Duraclay sink. Surgeons, nurses and hospital administrators appreciate this Crane Duraclay sink which is especially designed to expedite cleaning of instruments.*



C-5650. Non-staining under the most severe service, this Crane Mayo *Duraclay surgeon's wash-up sink presents the very latest in construction and design.*

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It is Crane DURACLAY, an entirely new ceramic material, possessing unique advantages for hospital use.

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Crane Duraclay is now available for many products in the Crane hospital line—including children's baths—surgeons' wash-up sinks and instrument sinks—utility room sinks—infants' baths—laundry tubs.

Duraclay is an additional reason why hospitals can increase convenience and sanitation with Crane equipment. A booklet, giving complete information about Duraclay, is yours for the asking.

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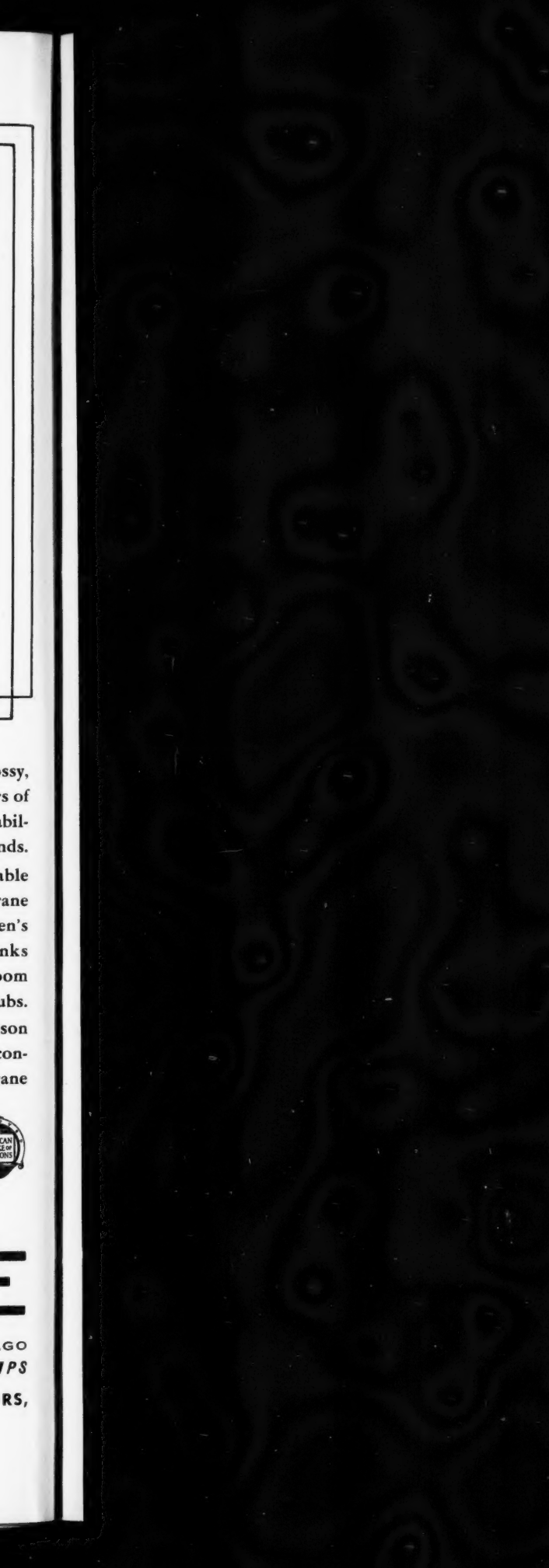

Hospital Management

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T. R. PONTON, B.A., M.D., Editor — A. B. ENGELSMAN, Associate Editor

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"TO TALK OF MANY THINGS..."

I HEARD A GOOD STORY THE other day about a man whose wife had been in hospital. When she was discharged after eleven days he was presented with a bill for $55. He hit the ceiling and very severely criticized the hospital for its exorbitant charges.

The superintendent had a brain wave and asked the occupation and average wage of the kicker. He was a brick layer who earned $12 per day, or $1.50 per hour. The superintendent remarked that he ranked as a skilled mechanic and asked how about the hod carrier. The latter was classed as a laborer, earning 75c per hour.

The superintendent then got down to hospital figures. He showed the man that the average personnel required in the hospital was slightly over one per patient. In other words, if one person could be found who would take entire care of the patient, including everything from skilled nursing and preparing meals to ordinary cleaning, one employee would be fully occupied with each patient for 24 hours and would receive $5 if the hospital took nothing out for material used. This works out at 20.8c per hour for a mixture of skilled and unskilled labor.

The man began to wonder how it was done. Anyway, he paid his bill, stopped kicking and is now going around among the members of his union telling them how cheaply the hospital is furnishing care for its patients.

◆ ◆

MANY YEARS AGO THE HOSPITAL administrators of the United States got together and formed an organization which afterward developed into the American Hospital Association. With the passing of the years this association has developed to a body which wields a marked influence in the hospital affairs of the nation but its size and the extent of the territory which it represents necessitates that its deliberations must be limited to generalities which are of interest to the nation as a whole. For the individual hospital administrator the exhibit of hospital supplies and equipment will always prove an attraction which will draw great crowds at every annual convention.

The need for more intimate contact with others having the same local problems has been, however, strongly felt and as a result state associations were formed in every state of the union. Questions affecting the particular state made them necessary and they will always be an essential part of our national organization. It was found, however, that many were so small as to make it difficult to make their meetings of interest to those who attended. Moreover, in the process of development, it became apparent that adjoining states had problems which were so similar as to be practically identical. As a result regional groups were formed, the intention being that they should be composed of the hospitals of states which had this similarity of problems. An analysis of the structure of these may be of some value to their future development.

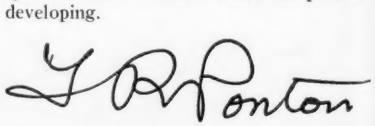
First is the great Association of Western Hospitals. This includes in its membership all the mountain states west of the eastern borders of Montana, Wyoming, Utah and New Mexico. The next of the great regional associations is the Tri-State, including Illinois, Indiana, Wisconsin and Michigan. Still in the west is the Midwest Association which includes in its membership Arkansas, Colorado, Kansas, Missouri and Oklahoma. South Dakota, Nebraska and Iowa are forming a new group. In the East is the New England Association which includes Massachusetts, Rhode Island, Vermont, Maine, Connecticut, and New Hampshire. New York, Pennsylvania and New Jersey are considering another new regional group. In the South is the Southwestern Conference which is composed of the hospital representatives of Florida, Georgia, Alabama, Mississippi and Louisiana. In this section of the country there is also the Carolinas-Virginias Association made up of the hospitals of the two Carolinas and the two Virginias.

Delaware, Kentucky, Minnesota, Ohio, Texas, District of Columbia, Maryland, North Dakota and Tennessee are not included in any of the regional associations which have been formed or are projected and they are so placed that they cannot form associations of their own. A regrouping therefore seems to be indicated, this to be based on geographical distribution and consequent community of problems. I have given this matter a lot of thought and suggest the following for consideration:

1. A western association to include the states of Washington, Oregon, California, Idaho, Nevada, Utah and Arizona.
2. A southwestern association to include Texas, New Mexico and Oklahoma.
3. A northwestern association to include Montana, Wyoming and Colorado.
4. A north central association to include North Dakota, South Dakota, Minnesota, Nebraska, Kansas, Iowa and Missouri.
5. A south central association to include Arkansas, Louisiana and Mississippi.
6. A Great Lakes association to include Illinois, Wisconsin, Indiana, Michigan and Ohio.
7. The New England association to include Maine, New Hampshire, Vermont, Massachusetts, Connecticut and Rhode Island.
8. An eastern association to include New York, New Jersey and Pennsylvania.
9. A southeastern association to include Delaware, Maryland, District of Columbia, Virginia, West Virginia, Kentucky, Tennessee, North Carolina and South Carolina.
10. A southern association to include Alabama, Georgia and Florida.

Texas, Minnesota, Ohio, Pennsylvania and New York already have strong associations and may not wish to merge with other states. Such a merger need not, however, sacrifice the interests of the state association and would certainly be of benefit to those with whom they are associated. For example, Indiana has not suffered because of its union with the other states of the present Tri-State Assembly and certainly the members of the Indiana Association have contributed to the strength of the larger association.

I am suggesting the above idea merely to call attention to the advisability of systematizing our national suborganization and to provoke discussion. By such discussion a plan will be worked out which is superior to the lack of national system under which we are at present developing.



Scraped Apple

● Scraped raw apple has been a home remedy for diarrhea since the days of the American Revolution, and recent medical publications have emphasized its value. Pectin, the active constituent of apple, appears to be even more efficacious than the raw fruit and has the advantage of ready availability for year-round use.

'NIPECTIN' (Nickel-Pectin Compound, Lilly) contains pure fruit pectin combined with a small amount of nickel, a compound which is more soluble and which has far more bactericidal power than plain pectin. 'Nipectin' may be expected to have a curative effect upon several types of diarrhea and dysentery and is particularly useful in treating the intestinal disorders of childhood commonly seen during the warm months of the year.

A one-ounce package of 'Nipectin'—quantity sufficient to treat the average child with "summer diarrhea"—is now available. 'Nipectin' is also supplied in four-ounce packages.

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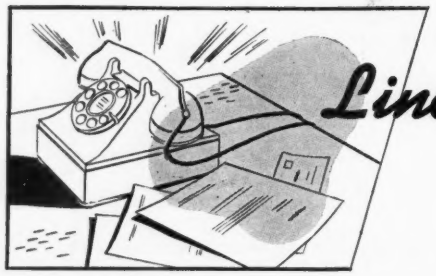

Lines and Letters

Reading Stand Wanted

To the Editor: *Do you know where we can obtain a reading stand for a person who has lost his right arm at the shoulder and wants something suitable for holding a newspaper in a chair or reclining on a day bed? This is not for reading in bed. We would appreciate it if you could give us any information as to where we might obtain such an item.*

A. B.

This letter brings up a subject about which we have thought a great deal. About a year ago we had a discussion on this subject with the superintendent of the Orthopaedic Hospital in Los Angeles, and we found that there was no reading stand made that was suitable for the person who lacked any of the functions of his arms.

We discussed the possibility of making a stand which could be either attached to the side of the bed or could be used on a tripod similar to that used for a music rest. We considered that the holder for the paper or book should be made in such a manner that it could be adjusted to any position, even upside-down, and that there should be bars which would hold the leaves open.

For the purpose of the orthopedic patient, we thought of using a vacuum cup similar to that used in a printing press but placed on the end of a rod so that the patient whose motion was limited could use the rod to turn the pages.

However, we have been unable to find any equipment along these lines, and would like to hear from any of our readers who have or know of some such device.

Hospital Administration Courses

To the Editor: *Will you please supply me with whatever data is available concerning formal training in hospital administration for liberal arts school graduates, and also a list of institutions that cooperate in such a program by supplying administrative internship for such graduates?*

H. L. P.

The only formal course offered in hospital administration is that given at the University of Chicago. This course includes theoretical lectures supplemented by internship in selected hospitals under recognized administrators, and full information about it is available from Dr. A. C. Bachmeyer, dean of the University.

The only other theoretical training available is that given at the various hospital administration institutes, the schedule of which is as follows: Western Institute, Aug. 12 to 24, Stanford University, Palo Alto, Cal.; Chicago Institute, Aug. 28 to Sept. 11, University of Chicago, Chicago, Ill.; New England Institute, Sept. 1 to 15, Harvard University, Boston, Mass.; Southern Institute, Oct. 21 to Nov. 1, Tulane University, New Orleans, La. These institutes present thoroughly practical courses on selected problems of administration and have been very successful. They are intended, of course, for men and women who have had previous experience.

More on Building Costs

To the Editor: *I notice on page 6 of the May issue of* Hospital Management *an inquiry from S.T.F. as to the cost of constructing a 90 to 100-bed hospital, and in connection with this I would like to offer these comments.*

The cost of a hospital depends on several limitations—its location, the comparative number of private rooms and wards, ward sizes, the elaborateness of the exterior and interior finish, the type of construction, etc.

I have just completed, at a cost of $75,000 for the structure ready to receive the equipment, a three-story fireproof building with push-button elevator, dumbwaiter, forced circulating hot water heating system, the best hospital plumbing, and sanitary floors and base with the exception of tile in all operating, service, toilet and bath rooms.

Accommodations are as follows:

Ground Floor: *Boiler room; x-ray department, fluoroscopy, therapy, etc.; morgue; receiving rooms; emergency room; office; reception room; kitchen; staff dining room; laboratory; record room; pharmacy; complete clinic; necessary storage room, and three toilets.*

First Floor: *Four 6-bed wards; two 4-bed wards; superintendent's room and bath; interns' rooms and bath; nurses' station; utility room; diet kitchen; two baths; three toilets; two sun porches.*

Second Floor: *One 6-bed ward (surgical); one 4-bed ward (surgical); one 9-bed ward (O.B.); babies' ward (bath); major operating room; minor operating room; O.B. operating room; two private rooms; two nurses' stations; two utility rooms; diet kitchen; sterilizing room; scrub room; doctors' room; nurses' room; bath; toilet; two sun porches.*

The walls of all operating rooms, toilets, baths and service rooms are tiled. Walls and ceilings on the first and second floors are finished with oil paint. The contract price includes also all general lighting fixtures and special fixtures for the operating rooms.

The total bed capacity is 53, not including the babies' ward which will accommodate twelve bassinets.

The requirements of this particular hospital did not warrant a larger number of private rooms. However, for each such private room added, the cost would have been approximately $600.

B. F. M.,
Architect.

This works out at $1,415 per bed, which is rather low compared with some other figures. The building as outlined includes all the parts which are most expensive in construction, such as the operating rooms and other special departments. As additional rooms are added the proportionate cost would be lessened, but the figure of $600 per room for additional rooms appears also to be somewhat below the usual figures.

Kitchen Set-Up for A 100-Bed Hospital

To the Editor: *Will you please advise me what is generally considered an ideal set-up as to personnel, number and qualifications, hours of duty and salary in a well-equipped main and diet kitchen of a 100-bed hospital, averaging 361 meals per day?*

S. L.

The following set-up is one which was used in a 100-bed eastern hospital, with which the writer was connected, where employees worked on an 8-hour schedule with one day a week off and also every other legal holiday off.

Cook—Meats, soups, vegetables, potatoes.

Assistant Cook—Relieved cook on days off; baked; assisted cook when baking schedule was light.

Porter and Butcher—Combined activities.

Extra Woman—Cleaned vegetables and potatoes for cook; relieved pot washer on days off; general clean up woman for cook.

Pot Washer—Washed kettles and did light cleaning; peeled potatoes for extra woman on days off.

Dishwasher—Washed china; relieved on glass and silverware.

Glass and Silver Washer—Washed glass and silverware; relieved on china.

Three Tray Girls—Set up trays and relieved each other.

Nourishment Girls—Relieved on days off by student nurses.

3 Student Nurses

Four Dining Room Girls—One for staff and personnel; three for cafeteria and graduates.

The main kitchen and dining room floors were maintained by the housekeeping department.

This set-up was for a centralized food service. If floor kitchens are used, one girl is sufficient for each kitchen—one relief girl and the tray girls would be eliminated.—M. E. G.

FLEXIBLY—CONVENIENTLY—ECONOMICALLY *Packaged*

ANOTHER RESPONSIBILITY OF LEADERSHIP

WHEN Baxter began to supply Parenteral Solutions in VACOLITERS, only the Liter size was provided. Soon it became apparent that a Half Liter—a Double Liter—would sometimes prove convenient and economical.

To supply a wide range of solutions in new sizes meant additional filling machinery, records, inventories of cartons, labels, and price lists; and greatly increased stock inventories at all warehousing points. From the beginning, however, Baxter has recognized its responsibility to provide whatever the best interests of the profession may indicate.

However broad the requirements, hospitals may specify Baxter Parenteral Dextrose and Saline Solutions with assurance not only of wide variety and highest quality, but also of packaging in containers of all needed sizes—containers which in every case are complete VACOLITERS (approved by the American College of Surgeons) *with their exclusive visible index of vacuum.*

IN developing its now widely accepted new technique for aseptic indirect Blood Transfusion, Baxter has been guided by these same considerations of convenience and economy in use.

With the Baxter TRANSFUSO-VAC, Drawing the Blood, Citrating, Transporting, Storing, Filtering and Infusing are all accomplished in and from a single vacuum container, bridging both time and space without break in asepsis. Procedure is almost automatic in its convenience, enabling one operator to perform the entire sequence with remarkable economy of time and effort, and without wasting a drop of blood. Citrate* contents are supplied in three quantities—for 250, 500 and 750 cc. of Blood. Accessory sets are provided for every important requirement.

For the average hospital, the safe rule is to stock two more TRANSFUSO-DONOR SETS *than the maximum number of blood transfusions per day.*

On request, professional bulletins discussing: Parenteral Solutions in VACOLITERS, TRANSFUSO-VAC Blood Transfusion Sets.

* ACCEPTED AMERICAN MEDICAL ASSN.

*2½ Sodium Citrate in Physiological Solution of Sodium Chloride in the Baxter TRANSFUSO-VAC Container.

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HOSPITAL SUPPLY CORPORATION

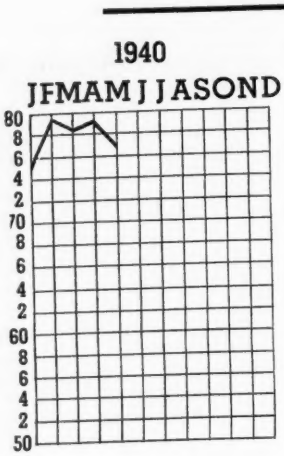
How's Business?

Hospital Occupancy Continues at High Level

Hospital occupancy in all sections of the United States continues at a level well above that reported for the same period last year, as indicated by the figures received by HOSPITAL MANAGEMENT this month. The May occupancy figure of 77.01 per cent showed a decrease from the preceding month of 2.09 per cent, but was 4.45 per cent over the May, 1939 figure of 72.56.

The total daily average patient census for the 100 hospitals reporting showed a drop from the month before—14,454 in May and 15,703 in April. Both total receipts and expenditures showed a slight decrease. May receipts amounted to $2,663,677.77 compared with $2,760,072.58 in April; May expenditures were $2,744,331.94 as compared with $2,904,598.38 the previous month.

"How's Business?" is based on figures received from over 100 hospitals in all sections of the country, representing a cross-section of business trends in hospitals throughout the United States. This list is frequently revised in order that the figures presented may give an accurate picture of conditions as they exist.



Average Occupancy on 100 Per Cent Basis

October, 1936	67.10
November, 1936	72.50
December, 1936	68.80
January, 1937	70.90
February, 1937	73.05
March, 1937	69.98
April, 1937	73.00
May, 1937	72.48
June, 1937	72.35
July, 1937	68.58
August, 1937	68.05
September, 1937	63.25
October, 1937	63.09
November, 1937	69.80
December, 1937	63.00
January, 1938	71.50
February, 1938	74.80
March, 1938	76.12
April, 1938	71.90
May, 1938	69.86
June, 1938	70.70
July, 1938	67.68
August, 1938	65.80
September, 1938	65.17
October, 1938	69.45
November, 1938	69.20
December, 1938	67.95
January, 1939	74.57
February, 1939	76.47
March, 1939	75.84
April, 1939	73.93
May, 1939	72.56
June, 1939	72.33
July, 1939	74.05
August, 1939	70.87
September, 1939	68.10
October, 1939	72.67
November, 1939	72.33
December, 1939	67.24
January, 1940	75.66
February, 1940	79.36
March, 1940	78.50
April, 1940	79.10
May, 1940	77.01

Total Daily Average Patient Census

October, 1936	9,454
November, 1936	10,204
December, 1936	9,687
January, 1937	10,771
February, 1937	10,941
March, 1937	10,990
April, 1937	11,703
May, 1937	11,002
June, 1937	11,403
July, 1937	10,914
August, 1937	10,712
September, 1937	9,805
October, 1937	10,004
November, 1937	11,590
December, 1937	8,903
January, 1938	14,177
February, 1938	14,944
March, 1938	17,579
April, 1938	14,465
May, 1938	14,194
June, 1938	13,939
July, 1938	13,976
August, 1938	13,735
September, 1938	13,138
October, 1938	14,103
November, 1938	13,685
December, 1938	12,877
January, 1939	15,133
February, 1939	14,886
March, 1939	14,585
April, 1939	14,293
May, 1939	14,702
June, 1939	14,266
July, 1939	14,952
August, 1939	13,419
September, 1939	13,827
October, 1939	14,536
November, 1939	14,908
December, 1939	13,476
January, 1940	15,326
February, 1940	15,483
March, 1940	15,658
April, 1940	15,703
May, 1940	14,454

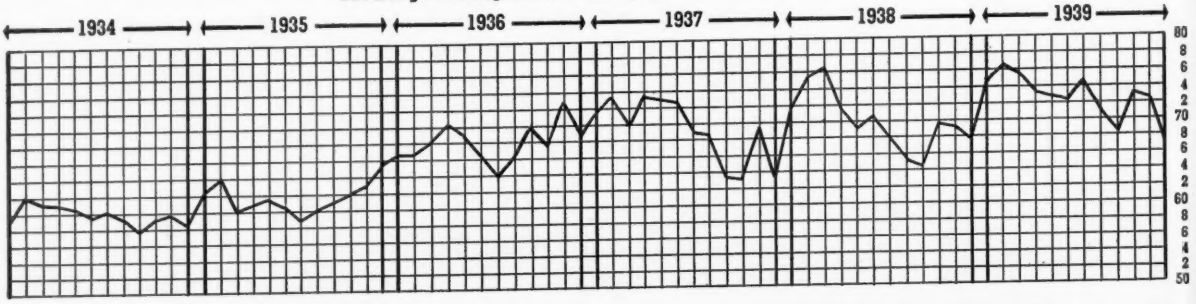
Receipts from Patients

October, 1936	1,520,719.21
November, 1936	1,465,067.52
December, 1936	1,272,765.60
January, 1937	1,539,576.00
February, 1937	1,516,917.00
March, 1937	1,672,002.72
April, 1937	1,694,262.24
May, 1937	1,776,046.32
June, 1937	1,646,881.92
July, 1937	1,728,112.32
August, 1937	1,773,724.32
September, 1937	1,496,919.68
October, 1937	1,679,252.40
November, 1937	1,624,680.72
December, 1937	1,491,132.24
January, 1938	2,285,605.34
February, 1938	2,202,334.78
March, 1938	2,611,169.58
April, 1938	2,312,768.26
May, 1938	2,481,591.59
June, 1938	2,304,268.32
July, 1938	2,529,686.40
August, 1938	2,337,295.65
September, 1938	2,126,627.84
October, 1938	2,433,872.54
November, 1938	2,277,880.76
December, 1938	2,162,011.03
January, 1939	2,457,434.28
February, 1939	2,282,062.33
March, 1939	2,524,429.49
April, 1939	2,463,491.55
May, 1939	2,669,878.14
June, 1939	2,936,732.81
July, 1939	2,558,450.00
August, 1939	2,395,063.49
September, 1939	2,355,545.45
October, 1939	2,560,529.68
November, 1939	2,536,426.56
December, 1939	2,353,627.42
January, 1940	2,722,150.88
February, 1940	2,504,661.32
March, 1940	2,849,669.35
April, 1940	2,760,072.58
May, 1940	2,663,677.77

Operating Expenditures

October, 1936	1,918,931.76
November, 1936	1,817,101.44
December, 1936	1,568,264.40
January, 1937	1,864,748.16
February, 1937	1,890,667.44
March, 1937	1,969,652.16
April, 1937	2,180,839.60
May, 1937	1,988,845.92
June, 1937	1,990,221.12
July, 1937	1,933,971.84
August, 1937	2,066,890.32
September, 1937	2,058,107.72
October, 1937	2,140,030.08
November, 1937	1,958,306.24
December, 1937	1,891,580.40
January, 1938	2,694,605.32
February, 1938	2,618,517.39
March, 1938	2,922,850.00
April, 1938	2,735,879.56
May, 1938	2,777,780.72
June, 1938	2,704,438.11
July, 1938	2,915,889.82
August, 1938	2,973,112.41
September, 1938	2,546,495.02
October, 1938	3,002,474.11
November, 1938	2,750,654.42
December, 1938	2,476,764.23
January, 1939	2,833,180.02
February, 1939	2,563,253.61
March, 1939	2,717,146.15
April, 1939	2,646,285.92
May, 1939	2,831,340.72
June, 1939	3,225,065.63
July, 1939	2,878,193.93
August, 1939	2,614,095.23
September, 1939	2,803,382.08
October, 1939	2,852,221.88
November, 1939	2,983,409.38
December, 1939	2,828,533.87
January, 1940	2,978,559.65
February, 1940	2,751,486.46
March, 1940	3,020,548.38
April, 1940	2,904,598.38
May, 1940	2,744,331.94

Average Occupancy of Hospitals — 1934 to 1939



Hospital Management

JULY, 1940

Defense Plans by P.H.S. Coordinate Health and Hospital Services

By KARL W. MASONER
Washington Bureau, Hospital Management

With virtually every mind in the nation turned on the momentous question of national defense and with every agency of the federal government coordinating its activities with defense concerns in mind, it is only natural that the health agencies of the government should do likewise.

Following up that thought, HOSPITAL MANAGEMENT's correspondent called on Dr. Thomas Parran, Surgeon General of the United States Public Health Service, to learn what is now being done and what may be done in the future to coordinate the health and hospital services of the nation to fit into the general program of national safety.

No Radically New Problems

Dr. Parran first suggested that the health problems of this country would not be greatly changed by the concentrated program of national defense preparedness. Rather, he said, existing problems are, or will be, merely intensified. As an example, expanded industrial activities in certain communities may create problems which will have to be dealt with by local hospital facilities. In the event of military concentrations the surrounding localities may be faced with intensified problems of disease control, and local health facilities will have to be expanded to meet those problems as they arise.

To carry the example further, a new industrial plant in a community may bring in 500 workers and their families and thus overtax the hospital facilities of the community. Under such circumstances local hospitals must expand. They will need to increase their out-patient facilities and enlarge their staffs. If local funds are not available for that purpose, then some form of assistance must be given if the nation's health is to be properly guarded and cared for.

The place of the Public Health Service in defense of the national health, the Surgeon General pointed out, is first of all in intensifying and expanding the functions which it already carries on. Chief of those functions are: (1) cooperation with the states in the provision of basic health services; (2) the pursuit of essential research in diseases and conditions affecting human health; (3) the provision of medical and hospital services to designated beneficiaries of the federal government; (4) the prevention of the introduction of disease from abroad and of its spread from one state to another.

Perhaps the real key to Dr. Parran's approach to national defense plans is best expressed in a paragraph from an address delivered recently before the New York State Conference of Health Officers and Public Health Nurses at Saratoga Springs, New York. Speaking of the armament efforts he said, "Yet for what cause is this nation arming if not on behalf of the men, women, and children who compose it? Their physical fitness, their freedom from preventable disease, their morale or mental stamina, will determine almost entirely the effectiveness of all other defense efforts. Important in the easy days of peace without a cloud on the horizon, it is urgent now that the people of this nation be physically tough, mentally sound, and morally strong. If we are not, to quote Mr. MacLeish, 'we can leave our planes unbuilt and our battleships on paper. We shall not need them'."

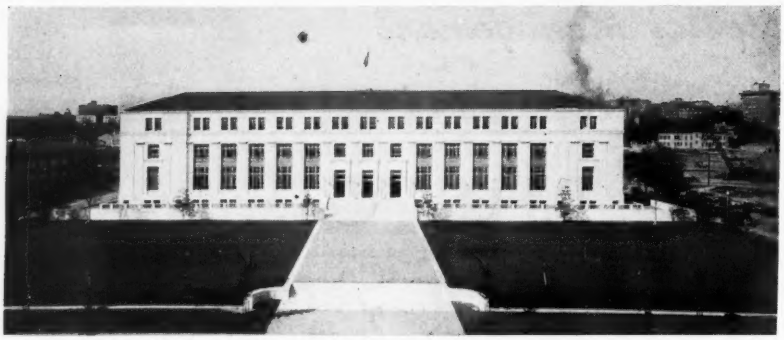
Coordination Advocated

The Surgeon General then went on to urge the appointment of a coordinator of medical and health preparedness as the first step in meeting the vital needs of manpower preparedness. This coordinator, explained Dr. Parran, could be either a single person or might be a committee of recognized authorities in the medical and hospital field. The coordinator would work with and through the Surgeons General of the U. S. Army, the U. S. Navy, and the U. S. Public Health service, other federal agencies, and the national voluntary organizations concerned with the prevention, diagnosis, and treatment of disease.

The task of first importance, said Dr. Parran in his address, is the need for listing and classifying professional and technical personnel in the country. The American Medical Association has already undertaken that job and the work when completed will undoubtedly prove of extreme value. During the interview the Surgeon General mentioned that he was keeping in very close contact with the A. M. A. in its work on this project.

Other problems of first importance with which the coordinator would have to deal include the protection and promotion of the health of industrial workers, the control of certain diseases which have a military importance and which, said Dr. Parran, "we could control if we were given

With the national emergency created by the war situation all other health plans are being subordinated to preparedness for defense. Taking an active part in this program, the United States Public Health Service, under the guidance of Doctor Parran, is mobilizing the nation's hospital and medical resources, and while it may be necessary to neglect temporarily other health activities, the Surgeon General states that, as soon as circumstances permit, these will be continued as originally planned.



The Public Health Building in Washington, D. C., focal point of any emergency health program planned by the federal government.

the will, the authority, and the money to do it," and the acquisition of stocks of certain strategic medical material. The Surgeon General also pointed out the shortage of laboratory technicians and of medical personnel generally which might result in case of war. According to calculations of the War Department every million men mobilized need the services of 7,500 doctors drawn from civil practice to care for them.

Prevent Errors of Last Mobilization

In the mobilization of four million men during the last war, Dr. Parran pointed out, over one-fourth of the effective medical men of the nation were called for Army and Navy service. No plan was set up and no effort made to assure the continuance of medical and hospital service in the home communities. As a result many counties found themselves without a single doctor. Medical school faculties were depleted so badly that many of them were almost put out of business. Hospitals all over the country, especially in smaller communities, lost much of their effective staff. "Today," said Dr. Parran, "we should investigate who should go, who should stay to practice, to teach, to operate an essential civilian service. We have no machinery now to do this."

Planning for Medical Supplies

During the interview the Surgeon General disclosed that he was hard at work now on the problem of securing an adequate backlog of strategic medical supplies, specifically opium and quinine. Under its authority to acquire stocks of strategic materials the Treasury Department has already acquired a large stock of opium and morphine. The vaults at Washington, once used to store gold, now hold enough morphine for at least three years. However, warned Dr. Parran, the regular supply from the Eastern Mediterranean is now cut off. We can, if necessary, grow in certain areas of this country the poppy plant which supplies the essential medicine. "But it must be planned now," he added.

The Surgeon General also gave assurance that plans were under way for the acquisition of stocks of quinine. Those plans cannot yet be disclosed, but they will assure the United States enough quinine to carry through any emergency.

Turning again to the Public Health Service itself, Dr. Parran pointed out the specific legal basis under which the Service could expand its activities. A special Act of Congress passed in 1902 authorizes the President "in his discretion to utilize the Public Health and Marine Hospital Service in times of threatened or actual war to such extent and in such manner as shall in his judgment promote the public interest, without, however, in any wise impairing the efficiency of the Service for the purpose of which the same was created and is maintained." Also under existing law the President may detail commissioned officers of the Public Health Service to the Army or Navy for duty.

Prevention of Disease Is Important

In its present program of cooperation with the states the Public Health Service and the state health agencies are coordinating all technical resources and facilities for the maintenance of health services to the general public. Especially emphasized, said Dr. Parran, is the control of venereal diseases. During the last war venereal diseases caused more disability than anything else except wounds and influenza. Special emphasis, he said, is also being placed upon controlling disease and maintaining effective sanitation in areas where military forces may be concentrated and in industrial areas, particularly where materials and equipment vital to national defense are manufactured.

As for the program of scientific research the Surgeon General pointed to the fact that the National Institute of Health has rearranged its research program to fit into the national defense program. In the Industrial Hygiene section five units, each consisting of a medical officer and an industrial engineer, are in the field in those states where there is the greatest expansion of industry. In addition two traveling technical units, each consisting of a chemist, ventilating engineer and toxicologist, are aiding in the solution of special problems.

Chief work of the Infectious Diseases section is being carried on in the perfection of the method of manufacture of typhus fever vaccine for use in Europe and South America. Also a program is being worked out for the immunization of civilian workers against pneumonia in the steel and other heavy industries.

Direct use of the hospital facilities under control of the Public Health Service may be somewhat limited. The Service has some 26 hospitals and it was estimated that they might supply as many as 2,000 beds in the event of an emergency. This would, of course, be in addition to the regular bed space and services which the hospitals now render and would be made available for patients whose care and treatment is requested or authorized by the Army or Navy.

Construction Plan May Be Affected

Indications are that national defense needs may play an important role also in the administration of the Wagner Hospital Construction Bill, if and when the measure is passed by Congress. Dr. Parran agreed to a suggestion to this effect made by the HOSPITAL MANAGEMENT correspondent. Carrying the idea further the Surgeon General suggested that first attention would probably be given to tuberculosis hospitals. The problem is most acute, said he, both from the standpoint of national defense and from the longer-range view of improving health standards of the nation generally.

Second consideration under the program would likely go to providing more adequate hospital facilities for those communities where population concentrations are being increased by national defense activities. Whether these activities be military or merely industrial, the heavy and unusual population concentrations will undoubtedly bring problems of hospitalization and medical treatment generally which must be dealt with.

Meanwhile, at the time of writing, the Wagner Bill had failed to show any signs of life in the House Interstate and Foreign Commerce Committee to which it was referred after pas-

(*Continued on page 33*)

Consideration of the Factors Which Influence Hospital Service

By T. R. PONTON, M.D.
Editor, HOSPITAL MANAGEMENT

An absolutely accurate and authoritative analysis of the hospital situation in any community can be determined only by careful local study, but there are certain factors applicable to all communities from which general conclusions may be drawn. In some instances the analysis of information available will show, with so high a degree of probability as to amount almost to certainty, that present facilities are adequate. In other localities the possibility of improvement will be indicated; when such improvement of service appears to be a practical possibility the means whereby this may be effected will sometimes be shown.

It is with these objectives in view that the present "Analysis of Hospital Service in the United States" was undertaken. The study was commenced with the sole objective of finding facts. No preconceived conclusions existed to influence judgment and consequently the deductions are believed to be as fair and logical as is possible.

In making the analysis of hospital service the following factors were considered:

Scope of the Analysis

1. Areas to be served
2. Accessibility to general hospitals
3. Population distribution
4. Physicians available.
5. Present hospital facilities, special and general hospitals—
   a. Definition of a general hospital
   b. General hospital standards
   c. Ownership and control of the general hospital
   d. Support of the general hospital

Based on these factors as applied to each state certain conclusions are reached and the analysis for the United States as a whole points naturally to a system under which the best possible hospital service and medical care may be made available.

Areas to Be Served

In the United States there are large areas which are set aside as national or state reservations, including the national forests and state parks. In many of these areas there are small towns and often there is a scattered population. They are not, however, open to general settlement, that which is permitted being strictly controlled by the national or state government. No systematized method of rendering hospital and medical care in such areas is possible except that sponsored or authorized by the governmental body in control.

There are other large areas which are set aside as Indian Reservations. These areas are open only to the tribes to which they are assigned; they are administered by the Department of Indian Affairs, which has sole authority in the provision of hospital and medical care.

It is for these reasons that these areas have been eliminated from the present analysis, leaving only those parts of the country which are open to general settlement.

Accessibility to General Hospitals

A very important factor in hospital service is accessibility to the hospital which will be called on to give the service. It is manifest that patients must be transported to the hospital, and experience has shown that with good roads and proper means of transportation it is rarely that a patient may not be safely transported a distance of 50 miles. This is therefore taken as a maximum service distance from a hospital for regular service.

In some types of complex illness, which require elaborate equipment and a high degree of professional skill for diagnosis and treatment, it is often impossible to provide all necessary facilities within this service distance, and means of transporting greater distances must be considered. In other instances the contour of the country makes this service distance too great for transportation of even those patients suffering from ordinary illnesses and consequently the service distance has been decreased.

For example, on the plains of Texas and Oklahoma, which offer no serious obstacle to travel and where graded roads are almost as useful as the hard roads in some other states, the full service distance of 50 miles is usually allowed. On the other hand, there are mountainous areas, such as those in Nevada and Utah, in which transportation is very difficult and consequently the service distance has been greatly decreased.

By thus estimating the service distance based largely on the possibility of safe transportation, service areas have been established within which the individual may receive a safe type of hospital and medical care.

Population Distribution

Population distribution is an important factor in determining whether there are sufficient people within the service range of any given town to utilize and support the minimum hospital or whether the scattered population can be given better service by some other means. The most authoritative source of information on this subject is the report of the Bureau of Census and a population distribution map, furnished by the same authority, which gives the population distribution by counties. Even in this there are, however, certain fallacies which can be eliminated only by local study.

As an example, there is a large area in southeastern California in which the distribution of population is shown as between six and 18 per square mile. The southern half of this area is the eastern part of Riverside and San Bernardino counties and is largely mountain and desert, the population being concentrated in the western part of the counties.

The ratio of beds required to serve any population must be subject to wide variation depending on the type of population. Some ratio must, however, be used as a common factor for determining needs. That of five beds per thousand stated by the Interdepartmental Committee was therefore adopted, although it includes all types of hospitals and is considered to be at least 25 per cent too high for general hospital requirements.

Using this ratio, it is seen that an area having a population of six per square mile must be 833 square miles in extent in order to fully utilize the minimum hospital of 25 beds. If transportation is good this is not too large an area for safe transportation, but even with the best of transportation it closely approaches the maximum limit. It is therefore considered that in an area having a population ratio of less than six per square mile the establishment of even the minimum hospital is not practicable and

some other means of furnishing safe care must be found. Where the population ratio is greater than six per square mile there is a strong probability that a hospital is both possible and necessary.

Physicians Available

It need scarcely be emphasized that the physician is an indispensable prerequisite to any type of hospital and medical care and that it would be useless to attempt to establish a hospital in which no physicians are or can be made available.

It has been suggested that in the scantily populated areas the establishment of new hospitals would attract young physicians who now gravitate to the larger centers. It may be true that a certain type of young physician would be so influenced, but to establish hospitals in scantily populated areas and so attract these inexperienced physicians would be placing a premium on an inferior type of care, since the physician would be very strongly tempted to undertake treatment beyond his experience and for which the hospital is not adequately equipped.

In all cities having hospitals approved by the American College of Surgeons, that body has made a careful survey of the type of medical care available and has approved it. For that reason no further analysis of medical service in these communities is undertaken. In other areas the number of general practitioners and of specialists has been secured from the directory of the American Medical Association.

Present Hospital Facilities

When considered from the point of view of treatment, hospitals are divided into two classes—special and general. General hospitals are available for the treatment of all classes in the community and all types of disease; special hospitals limit their service to some special section of the community or to some particular type of disease.

Among hospitals classed as special are those devoted to the treatment of tuberculosis, mental diseases, and malignant diseases. These are eliminated from this analysis because they are not available to give a general service to the community. Moreover, each offers special problems which cannot be properly considered in an analysis of general hospital service.

From the point of view of the limited class of the population who are admitted, hospitals maintained for special purposes must also be eliminated. This classification includes those operated by the Department of Indian Affairs, by the Veterans Administration, and by the United States Public Health Service.

In so eliminating certain hospitals there is a factor of error since they admit and treat a limited part of the population who are included in census reports, but to include them leads to an even greater factor of error and gives an impression of more extended service than actually exists.

There remains, for the purposes of this analysis, all general hospitals maintained for the treatment of all classes of the population and all types of disease.

Definition of a General Hospital

A general hospital, according to modern usage, is defined as one which admits and treats patients suffering from all types of disease. This is a definition in the interpretation of which considerable latitude must be allowed since some general hospitals, because of limited facilities, must refuse to admit those patients whom they are unable to treat properly or who may be a source of danger to others.

The most important requirements for a general hospital concern its physical plant, its personnel, the diagnostic and therapeutic facilities available and the type and organization of its medical staff.

The physical plant must be such that patients admitted are safe from all physical and mental hazards and can be made as comfortable as their pathology will permit.

The personnel of all types, whether professional or nonprofessional, must be adequate in number and well trained in their work. Fixed standards have been adopted for almost all classes of the personnel.

Certain adjunct facilities for diagnosis and treatment must be available if the hospital is to fulfill its responsibilities. The minimum essentials are a laboratory that can make the examinations required for diagnosis in ordinary illness, and a department of radiology that can diagnose the common conditions which may be referred to the department. For the proper interpretation of the findings of both the laboratory and the department of radiology there must be at least one physician capable of making such interpretation.

A general hospital having only these minimum adjunct facilities must, in addition, have a consulting arrangement with a hospital or private department at a distance not too great to allow reasonably prompt service in those pathological conditions requiring facilities beyond the type required for examination of the ordinary case.

The above are the minimum facilities which should be found in any general hospital, regardless of its size. As the larger institutions come under consideration, it is reasonable to expect more elaborate facilities and in the hospital which professes to treat all types of disease within its own

(*Continued on page* 51)

For the past two years Dr. Ponton has been engaged in a detailed study of hospital service in the United States with the purpose of determining what service is provided at the present time and the best means of improving it. This analysis has been based on all available information: census figures are those of the last report of the Bureau of Census, that for 1930; information contained in the report of the Interdepartmental Committee has been used insofar as it was applicable; known hospitals are those contained in the 1939 list of hospitals registered with the American Medical Association; and approved hospitals are those found in the 1939 list issued by the American College of Surgeons.

Service areas could best be visualized by the use of maps, and for this purpose many were used, each furnishing different data. The information thus secured was transferred to a topographical map issued by the Department of the Interior, Geological Survey.

The resulting analysis correlates a mass of information which is so great as to make complete publication impossible. It will, therefore, be summarized in a series of articles of which this is the first.

Proper Preventive Measures Lessen Explosion Hazards of Anesthetics

By H. SIDNEY NEWCOMER, M.D.
745 5th Ave., New York City

It is now a well established fact that at least the majority of cyclopropane, ether and ethylene explosions occurring during closed system anesthesia are due to static. Static charges of considerable potential (and magnitude) can readily be developed on objects and persons in the anesthesia field through frictional contacts and movements.

From an electrical point of view it is the non-conductors in the room which constitute the hazards. They are so for two reasons: because they are the best sources of static electricity (through friction), and because their non-conductivity may be a bar to the dissipation of charges, charges which therefore collect until an opportunity for their discharge by sparking occurs. As an example, non-conductive floors are an excellent source of static electricity, as static collects on objects sliding or scuffling over them, and is then retained because the floor is an insulator.

The Danger From Static

The danger from static arises through the fact that when bodies insulated from each other and charged to a different or opposite potential approach each other, a discharge between them will occur which may very likely be in the form of a disruptive spark of sufficient intensity to ignite an explosive mixture, if any be present in the spark zone.

The amount and potential of static charges arising in the operating room, and hence their danger, can be reduced by eliminating, so far as is possible, the use of such insulating or non-conductive materials. Where this is impossible only those which generate the least static should be employed. One should avoid the use of any but cotton materials (no wool and no silk) for clothing and drapes, and as an added precaution, one should rinse drapes and towels, after they have been laundered, in 0.5 per cent calcium chloride solution. This decreases to about one-third the static potential which can be induced upon them by friction.

Aside from measures which decrease the amount of potential which may be generated by frictional movements, and it is very important that they be fully carried out, the surest means of preventing a spark discharge is to provide means of electrically intercoupling all objects which might otherwise acquire different potentials. When so coupled they are at the same potential and cannot discharge to each other. This electrical binding together can obviously be accomplished with wires as in the case of the Horton intercoupler.

A simpler method is to provide more certain and automatic means of contact between every object in the anesthesia zone by introducing a common conductor such as a conductive floor and causing all objects to be in electrical contact with it. At the same time we thus eliminate the static which originates in most floors. The character of such a floor will be presently discussed. To make certain of electrical contact with it one should equip all personnel with conductive soles on their shoes and provide drag chains from instrument tables, operating table and anesthesia machine to the floor. It is particularly important that the stool on which the anesthetist sits should not have a rubber cover and should have electrical contact with the floor.

Grounding of Patient Essential

One should, above all, provide suitable grounding of the patient. For this purpose one may use a chain from the patient to the table, with a megohn resistance (obtained at a radio parts store) in series to protect the patient in case of accidental contact with the lighting circuit, cautery, etc.

A more satisfactory coupling, and one which provides additional protection by including other important elements of static hazard in the safety chain, is graphite twine. This has a high protective resistance in itself, and spark discharge to it is impossible because the finely divided graphite only permits of invisible brush discharge and hence tends of itself to harmlessly discharge any accumulated static. This graphite twine or cord should be tied to a naked bar on the operating table, tied to the anesthesia machine and loosely looped to the wrists of the patient and the anesthetist.

Conductivity of Floors

One excellent means of making the floor conductive is by the use of a conductive rubber floor covering. One such floor covering which has been developed comprises a sheet of conductive rubber floor material of fairly low resistance in which is imbedded a wire screen so as to insure uniformity of conductivity throughout and provide a metallic surface to which a good ground contact can be made.

Where the operating room is already provided with a terrazzo or tile floor in which a conductive metal grid has been inlaid, this floor may apparently be made sufficiently conductive by adopting the routine of finishing off the ordinary mopping operation with 4 per cent calcium chloride solution. This solution soaks into the pores of even hard tile sufficiently to give it adequate conductivity so as to cause it to bleed away charges of electricity from objects touching it. Even when dry to the touch the floor remains sufficiently conductive so that all objects in contact with it come to the same potential. Such a treatment helps to accomplish the desired result whether or not a grid is present but may be less effective without the grid.

A drag chain consisting of a length of brass chain fastened at both ends so as to contact the floor for a foot or more of its length makes a satisfactory contacting arrangement from table, stool or anesthesia machine to the floor. Conductive rubber casters for tables and stools should presently be commercially available and make a

That there is a grave explosion hazard in the use of many of the indispensable anesthetics is generally recognized, and much study is being given to safeguards and means of prevention. The last word has not yet been heard on this subject, but Dr. Newcomer, after careful study, has given a clear statement of the knowledge available at the present time.

less fragile and more certain contact. If a drag chain is not used the contact between table and floor can be made with a wet towel.

Conductivity of Shoes

The production of conductive rubber soles for shoes is under investigation. The conductivity of ordinary leather-soled shoes has been thoroughly investigated at the Massachusetts Institute of Technology. The soles of such shoes have been found to be a reasonably satisfactory substitute for conductive rubber soles. *Ordinary rubber soled shoes should not be used* as they perfectly insulate a person wearing them and enable and help the person to accumulate a considerable and dangerous charge.

Means for including the patient in the intercoupling has been described. The establishment of this contact between the patient and the table (and hence the floor) is very important as otherwise the patient may be dangerously isolated from all other objects in the anesthesia field. The rubber pad and pillow have a dangerous insulating effect, an effect which it seems impossible to avoid by dispensing with their use, even though their presence, as non-conductive bodies, makes them a hazard because they are very potent generators of electricity.

The practice of always maintaining contact between the anesthetist's hand and the patient's face, or when breaking such contact, of reestablishing it at a point distant from a possible leak at the mask, is a good one. It has in the past, when rigidly practiced, prevented possible sparking in the explosion zone. The anesthetist should observe like precautions in respect to his contact with the anesthesia machine.

The gas hose and rebreathing bag are non-conductors and hence good sources of static when rubbed or manipulated. Several fatal explosions have originated in this way. Rinsing and dipping the gas bag and hose in calcium chloride solution is recommended as probably obviating this danger. One of the manufacturers of anesthesia apparatus will presently have available conductive rubber rebreathing bags, hose and face mask which will completely eliminate this hazard. Moreover such conductive hose and mask will serve, as shown by Farrand, as an effective electrical intercoupler between the patient and machine, and hence also with the floor and the rest of the set-up as described above.

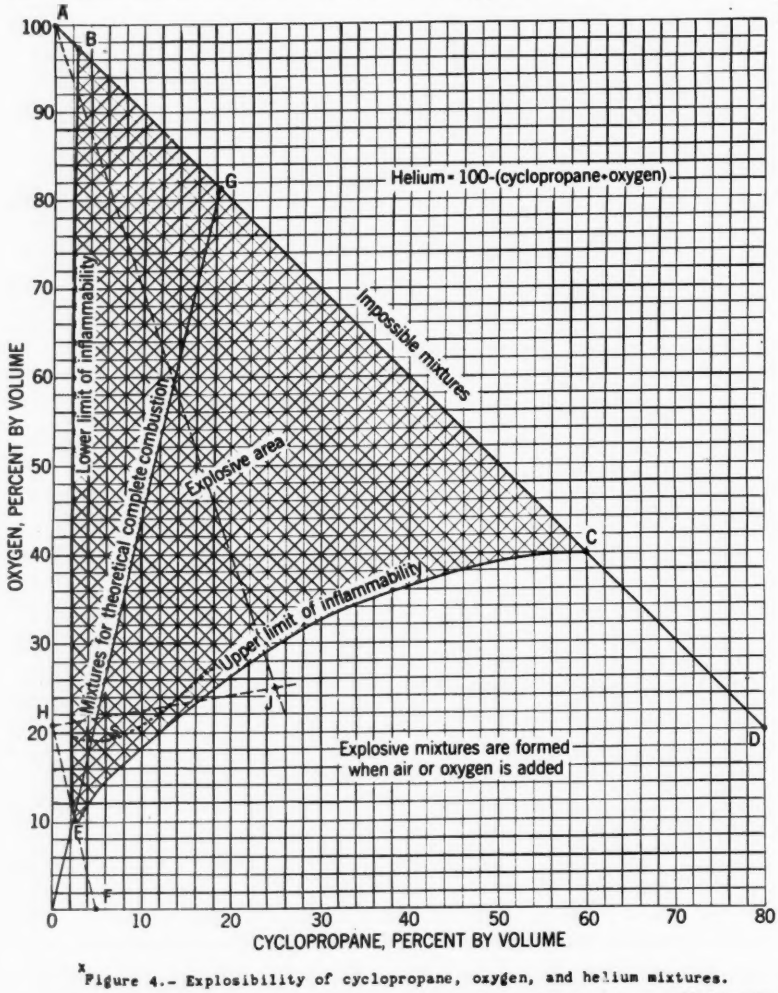


*Figure 4.- Explosibility of cyclopropane, oxygen, and helium mixtures.
S= Possible upper limit of ignition by spark, explosion limit still higher; curve added by HSN

*From US Bureau of Mines R. I. 3511 by G. W. Jones, R. E. Kennedy, & G. J. Thomas.

Humidity May Not Protect

It had been thought that a high humidity would prevent accumulation of static, but a number of explosions have occurred with relative humidities above 65 per cent, and it has recently been shown that artificially conditioned operating rooms are more dangerous than non-conditioned rooms. This is due to removal of CO_2 by the air conditioning apparatus. It is the CO_2 in the wet atmosphere which makes it conductive (when it is conductive).

Quenching Power of Helium

Recently at two research centers, the Massachusetts Institute of Technology—Lahey Clinic group and the St. Francis Hospital—Bureau of Mines Pittsburgh group, important work has been in progress on the development of non-explosive anesthesia mixtures. The technical work of the Bureau of Mines has been most thorough in this respect. The accompanying chart from the U. S. Bureau of Mines by G. W. Jones, R. E. Kennedy and G. J. Thomas, gives much of the essential data.

Helium has a high thermal conductivity and quenching power on flame propagation in otherwise inflammable anesthetic mixtures. In the accompanying figure taken from the Jones paper, the shaded area represents inflammable mixtures of cyclopropane, oxygen and helium. It will be seen that if in mixtures of these gases the cyclopropane concentration is 20 to 25 per cent then the oxygen concentration can rise to over 25 per cent before an inflammable mixture exists. In fact incomplete data indicate that the inflammable area can be entered some distance from below, that is by adding oxygen, before the mixture becomes explosive or before the flame quenching effect of helium is sufficiently reduced to permit of ignition with a spark. The dotted line "S" has been added to the Jones diagram to indicate such possible safety limits. The explosive limits have not been precisely explored, but are higher.

(*Continued on page 39*)

25th Anniversary Marked by C.H.A. In Silver Jubilee Convention

In celebration of the 25th anniversary of the Catholic Hospital Association, more than 2,500 representatives from 900 Catholic hospitals in the United States and Canada attended the Silver Jubilee Convention, held in St. Louis from June 17 to 21. During the entire five days of the meeting, stress was naturally placed on the history of the organization and on the progress made by Catholic hospitals during the last 25 years, with Father Schwitalla devoting a large part of his presidential address, at the opening session, to this subject.

Exhibitors were asked to make this the theme of their exhibits and almost all were historical in character. Most of the general sessions were around the central theme of "Twenty-Five Years of Hospital Activity and Professional Education," with two devoted exclusively to the historical background of the Catholic hospital in the two countries.

History of Hospitals Told

One session was given over to the development of Catholic hospitals in Canada, with the feature address by The Rev. Joseph S. McCowell, Diocesan Director of Hospitals, Hamilton, Ont. He traced the development of the hospital from the founding of the Community of Sisters of Mercy in Montreal in 1737 to the present time. The beginning of two hospitals in Canada in the 17th century—the Hotel Dieu of Quebec in 1639 and the Hotel Dieu of Montreal in 1642—was discussed in papers read by Reverend Mother Saint-Marc and Reverend Mother Allard, both of Quebec.

Another session was devoted to the relation of the history of the Catholic hospital system in the United States. "Today," said Sister Mary Catherine of Normandy, assistant visatatrix of the Daughters of Charity of St. Vincent de Paul, "6,000 sister nurses serve 237 general and 39 special hospitals, with 40,000 beds, in the twelve states along the Mississippi above Louisiana. The source of all these widespread services was a two-room log cabin where the Daughters of Charity in 1828 established St. Louis Hospital, later called St. Louis Mullanphy Hospital and now the DePaul Hospital, oldest in the United States."

In 1853, she related, the Daughters of Charity established St. Ann's Lying-In and Foundling Asylum in St. Louis, first institution of its kind in the United States, and then set up an institution for the aged adjacent to St. Ann's, and, in 1858, established St. Vincent's Sanitarium.

In 1853, too, she said, the Sisters of St. Joseph of Carondelet arrived in St. Paul, Minn., and established St. Joseph's Hospital there. She traced the history of all the various institutions, through the days when a note of "7000 patients between 1855 and 1866" was considered an adequate hospital record, to the present time.

Shown above are a group of officers of the Catholic Hospital Association. Seated, from left to right, are Sister Helen Jarrel, secretary; Mother M. Irene, treasurer; Sister Mary Angela and Sister Agnes Cecilia, board members. Standing, from left to right, M. R. Kneifl, executive secretary; Sister Marie-Joseph and Rev. Mother M. Rose, board members, and Rev. Alphonse M. Schwitalla, president.

The beginnings of the Catholic hospital on the Atlantic coast from 1849, when St. Patrick's Orphan Asylum was established in New York, were traced by Mother Marie Vincentia of St. Vincent-on-Hudson, N. Y.; in the Middle East and West by Mother Mary Rose of the Sisters of Mercy, Pittsburgh, Pa.; in the Northwest by Mother Mary Mildred, Sisters of Charity of Providence, Seattle, Wash., and in the South by Mother Mary Bonaventure of the Sisters of Charity of the Incarnate Word, San Antonio, Tex.

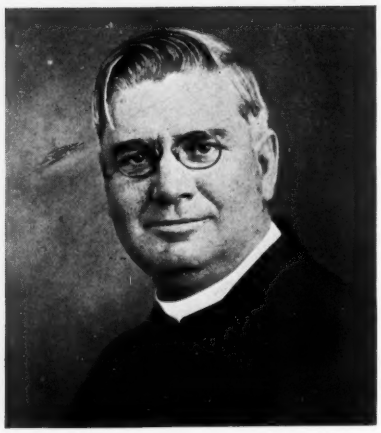
Progress of Hospitals Reported

The opening day of the convention was devoted to addresses of welcome to the convention together with Father Schwitalla's presidential address, in which he reported on the progress of Catholic hospitals during the last 25 years. In the United States, he said, their number has increased from 541 to 682, and in Canada from 90 to 179.

He spoke also of the problems facing hospitals today, the relation between public and private hospital service, and the role of hospitals during national emergency or war. Of the latter problem he said that every hospital should begin now to plan how it best could carry out its institutional responsibilities with greatly reduced resources of doctors, nurses and materials.

Tuesday saw the meeting in full swing, with a general session on "The Church's Position in Hospital Activities" and sectional round table meetings devoted to technical aspects of group hospitalization, hospital service

REV. ALPHONSE M. SCHWITALLA
. . . re-elected president of the C.H.A. for a twelfth term.



RT. REV. MSGR. M. F. GRIFFIN
. . . re-elected first vice-president of the Association.

statistics, medical staff organization, purchasing and nursing.

Graham L. Davis, hospital consultant for the Kellogg Foundation, Battle Creek, Mich., opened the meeting on hospital statistics with a plea for more interest in and attention to this phase or organization. No institution, he said, has greater claim to public support than the hospital, and the basis of its appeal should be statistical facts stated in concrete terms that the public can understand.

Hospitalization Plans Discussed

The growth and importance of voluntary hospital insurance plans, in which more than 5,000,000 American workers now are participating, were considered by a round table group conducted by Ray F. McCarthy, director of Group Hospital Service, Inc., St. Louis. The security of these workers, Mr. McCarthy said, is assured not only by reserve funds of the services, but also by individual guarantees of hospitals.

During the discussion which followed Rev. John W. Barrett of Chicago said that it is the aim of all persons connected with voluntary insurance plans to make them available to families in the lower income brackets. Msgr. John J. Healy, of Little Rock, Ark., added that the program cannot be considered complete until provision has been made for farmers as well as industrial workers.

Tuesday's general session was addressed by Bishop Joseph H. Schlarman of Peoria, Bishop Karl J. Alter of Toledo, Bishop Gerald P. O'Hara of Savannah-Atlanta, Dr. Ralph A. Kinsella, director of Internal Medicine, St. Louis University School of Medicine, and Sister M. Mathilde of Charity Hospital, New Orleans.

Quoting words of Christ not infrequently cited in excuse, "The poor you have always with you," Bishop O'Hara explained, "He did not mean that was His will but He knew that there would always be helpless victims of man's greed and selfishness. Care of the poor in all their needs is traditional with the church. It flows from the principal teaching of Christianity—charity."

Bishop Alter got down to cases in a forthright application of the social encyclicals of Leo XIII and Pius XI. Rejecting theories of communal ownership or state socialism, the church, he pointed out, teaches that private property is "an indispensable means of safeguarding the welfare of the individual and of society itself." To justify itself it "must not neglect its social responsibility but must serve both the individual and society."

So hospitals must justify themselves, he said. As their community needs are met in the relation of number of beds to patients, they will have to choose whether to become "luxury institutions," or to extend "the quantity and quality of free or charitable service to the public."

Hospitals as Employers

Principles laid down in the encyclicals vitally concern hospitals as large employers, Bishop Alter continued. "Labor is not a commodity to be purchased in an open market but must be compensated according to the standard of a living wage. A living wage is a first charge on industry according to Catholic ethics and it is a first charge against the operating costs of a hospital."

"The encyclical letters of the Popes likewise assert the right of labor to organize into unions and to bargain collectively through chosen representatives. This principle raises an interesting and often vexatious question for our hospitals, but it can no longer be set aside as inapplicable or impertinent. The fact is that hospital employees are being organized into unions in many cities and the problem must be squarely faced according to Catholic ethics.

"Have hospital employees the right to organize? The answer of the church is—yes. Have hospital employees a right to bargain collectively through freely chosen representatives? Again the answer is—yes. Have hospital employees a right to a wage contract? The answer here is—no; at least under the usual conditions which a hospital faces."

Citing the encyclical letter of Pope Pius XI which mentioned growing bureaucracy and budgets and which set forth that the state could guard public welfare by indirect means, "directing, watching, stimulating and restraining as circumstances suggest or necessity demands," Bishop Alter said this gave the answer to a government program to build, staff and operate hospitals.

"The answer is no, provided the need can be adequately met by private resources and individuals' efforts," he said. He reaffirmed state responsibility "for public health and physical well-being," and said if more hospitals are needed the state "must see to it." But it should be done by encouraging private effort, as by social insurance enabling the poor to meet the costs, he said. "The sound principle which should be operative here is that of subsidizing the patient and not the institution."

Presentation to Father Schwitalla

After a short general session on Wednesday morning, devoted to the ideology of the Catholic schools of nursing, delegates visited St. Stanislaus Seminary and "Vouziers," the residence of Joseph Desloge, at Florissant, Mo., where a surprise presentation was made by the Association to Father Schwitalla in recognition of his services as president. A spiritual bouquet made up by members of religious communities was tendered him by Msgr. Maurice F. Griffin, of Cleveland, and Mother Mary Irene of St. Mary's Hospital, St. Louis, announced a $1,000 gift to the medical library of St. Louis University, of which Father Schwitalla is dean, and the gift to him of a trip to Europe when conditions abroad permitted.

During the visit, distinguished service crosses were awarded to 44 nuns, in addition to 32 posthumously honored, and to Brother Mathias of the Hospitaller Brothers of St. John of God, superior of the order and founder of its Canadian Province.

Thursday's round table discussions included one which was particularly timely, "The Critical Importance of the Rural Hospital." Emphasizing the religious role, The Rev. George Daly, C. SS. R., of Toronto, dealt with problems of the Church and public health on the tide of immigration into Canada, quoting Pius IX, "When the world has ceased to believe in miracles, it still believes in charity."

Failure of private agencies to meet rural needs is itself a stimulus toward the government hospital program which causes them misgivings, pointed out the Rev. R. B. Schuler of Krakow, Mo., vice-president of the National Catholic Welfare Conference, at the same meeting. He quoted from the "Manifesto on Rural Life": "Although the intervention of the state is necessary for an adequate health program, it is neither desirable nor necessary that the state abrogate to itself the whole field of community health. It is well to leave to private and cooperative endeavor as much of the work as such non-political groups can and will carry on in an effective manner."

"It appears," he commented, "that more of this 'private and cooperative endeavor' is necessary in rural America if we wish to check the trend toward bureaucratic control of health facilities. The inadequacy and in many places the complete absence of private and cooperative health service will permit the people of the territory no alternative but to accept what is imposed upon them."

Hospital Act Causes Concern

Concern over some provisions of the National Hospital Act of 1940, now before the House of Representatives, and the nation's health in the event of a national emergency in the United States was expressed in resolutions passed at the Friday morning session.

"It is recognized that many of our institutions may be dedicated to military service and we hope that in the event of such a terrifying emergency our hospitals may be chosen in great numbers for the purposes of the war," one resolution stated. "Our hospitals are strongly advised to prepare themselves by careful planning to meet any emergency which may arise through the withdrawal of important members of the personnel, or through other measures which contingencies may make necessary."

As to the hospital bill, the Association declared itself eager to lend the full force of its endorsement, but "in its present form, there are still provisions with which the Association

(*Continued on page 32*)

New York Hospitals Study Fire Safety Problem

By LEONARD F. MAAR
Safety Research Institute, New York City

A new approach to the problem of safety in hospitals has been made by the Greater New York Hospital Association. There are about 100 institutions in the association and by pooling their information and experience in controlling accidents of all kinds they are creating a new source of data on this important subject.

In May the Association entered upon its second year of specialized study of safety problems. Already its committees have contributed original material on various phases of the subject. Insurance company engineers, manufacturers and specialists in several fields have given of their knowledge and experience that all might benefit. New procedures are being tested and good practice standards are being established.

Not the least important of the safety programs is that devoted to fire prevention and protection. In New York there have been no serious hospital fires recently, but there have been a number of small fires that might have been more serious had they not been put out without delay. If all the small fires could be extinguished quickly enough, there would be no big ones. For that reason the Association's fire safety committee has given considerable attention to first-aid fire protection technique.

The hospital is occupied for 24 hours each day and there is an excellent chance that fire will be discovered almost as soon as it starts. That is the time it can be put out or controlled with first-aid measures. If it gets beyond that point, there is going to be serious trouble. Extensive damage by fire and water is the least of it. There are the bed-ridden, helpless patients who might be trapped, injured or killed, and that is the first fear of hospital management.

The National Fire Protection Association reports there are from three to four fires every day in hospitals in the United States and they take a toll of damage amounting to $1,000,000 or more annually. The problem is to reduce the number of fires and reduce the losses involved in fires that do break out.

Accordingly, members of the Fire Safety Committee of the Association began their deliberations by seeking out the causes of hospital fires and the points of hazard where they occur. Safety Research Institute, from its experience, was able to be of service by compiling a chart of these hazards according to the departments involved. This led naturally to discussions of the best means of preventing fire from happening at those points of hazard. From there on, it was a comparatively simple matter to specify the first-aid equipment required at those points to provide adequate protection.

All this data was added to the chart, and, for about a year, the chart was in the hands of the Fire Committee for consideration. It finally was approved and copies have been distributed to all the hospitals represented in the Association.

That the principle of fire safety upon which this data is based is sound has been demonstrated time and time again. Fire extinguishers of approved types constitute the first line of defense. Many instances of their use could be cited, but a few cases will serve to illustrate the point.

In a Massachusetts State Hospital for the Insane, 1,400 patients sat at luncheon in the new "fireproof" cafeteria. Fire started in the accumulated grease in a ventilating hood over a kitchen range. The cafeteria quickly filled with the characteristic smoke from such a fire. Seven women attendants calmed the patients while kitchen workers fought the flames with fire extinguishers and held the fire under control until firemen arrived.

In a Pittsburgh hospital, lubricating grease on the cables of an elevator was ignited by a spark. A pall of smoke spread through the fourth floor of the institution. Firemen put out the flames with extinguishers.

In Brooklyn, N. Y., a nurse was smoking in her room in the nurses' home. She moved to open a window with the cigaret in her mouth. The tip touched a curtain and in an instant the window was wreathed with flame and smoke. She put out the fire with an extinguisher before it spread to other combustible material in the room. She had been especially trained to use an extinguisher and met the emergency without confusion.

In the basement laboratory of a hospital in Utica, N. Y., benzine and paraffine came in contact with a lighted Bunsen burner. A worker sounded an alarm, bringing five pieces of fire apparatus to the scene. Meanwhile, other workers put out the flames with an extinguisher, leaving the firemen nothing to do but make an inspection of the scene.

Fire Protection Check Chart

HAZARD	PREVENTION	EXTINGUISHERS Type	Location
Ambulance			
Motor fires; accidents	Proper maintenance	C	2
Boiler Room			
Oil spills	Good housekeeping	B	1
Accumulations of rubbish	Good housekeeping	A	1
Carpenter Shop			
Chips and shavings	Good housekeeping, fire-resistant cans for rubbish	A	1
Sparking, arcing or overheating in electrical equipment	Approved installation and maintenance	C	1
Glue pot (gas)	Fixed pipe connections and insulated base for burner	A	1
Cleaning Fluids and Supplies			
Flammable liquids and combustible materials	Storage in fire-resistant locker or cabinet	B	1
Dining Rooms			
Careless smoking and use of matches	Plenty of ash trays	A	1
Electric Machines and Wiring			
Arcing, sparking, overfusing, etc.	Approved equipment and installation plus proper maintenance	C	1
Elevators			
Careless use of matches or smoking in cars	"No Smoking" rule	*	2
Elevator Machinery			
Electrical fires	Proper maintenance	C	2
Elevator Shafts			
Accumulations of dust in shafts or pits	Keep shafts and pits clean	A	1
Garage			
Flammable liquids, oils	Approved storage tanks; good housekeeping	B	1
Incinerators			
Accumulations of rubbish	Good housekeeping; use of metal rubbish cans	A	1
Back-flashes from dust, sawdust, floor scrapings	Place all fine, loose material in bags or other containers to eliminate hazard of quick, explosive ignition	A	1
Kitchens			
Heating equipment, ranges, ovens	Approved insulation of floors and woodwork	A	1
Grease in flues and hoods	Frequent, regular cleaning	B	1
Grease in ovens or on stove	Reasonable care	B	1
Blower system	Approved installation of fans and motors	C	1
Laboratories			
Flammable liquids	Fire-resistant storage	B	1
Gas heating devices	Proper mounting, insulation and connections	A	1
Electrical devices and connections	Approved installation	C	1
Laundry			
Electric hand irons	Approved portable cords and connections; thermostatic control	A & C	1
Spontaneous ignition of oily garments	Proper sorting and storage	A	1
Chutes	Careful supervision of material placed in chutes	†	2

HAZARD	PREVENTION	EXTINGUISHERS Type	Location
Mattress Shop			
Combustible material	Fire-resistant bins for storage	A	1
Dust	Adequate ventilation		
Miscellaneous Storage			
Combustible materials	Good housekeeping	A	1
Operating Room			
Flammable and explosive anesthetics	Care in the use of open lights, radio knives, high-frequency electrical apparatus or live cauteries; keep humidity above 54 per cent	B	2
Sparks from electrical switches in explosive atmospheres	Installation of mercury switches		
Oxygen Chamber			
Oxygen under pressure will explode on contact with oil, grease	No smoking sign. Elimination of oil and grease within chamber or plumbing joints	A	2
Paint Shop			
Flammable liquids	Storage in fire-resistant cabinet	B	1
Pyroxylin lacquers	Approved spray booth	B	2
Paint and oil soaked rags	Covered fire-resistant container	B	1
Pharmacy			
Flammable liquids	Storage in fire-resistant cabinet	B	1
Refrigeration			
Accumulations of dust, oil, and grease in motors and in pumps	Good housekeeping	C	1
Sparking or overheating in electrical equipment	Approved installation and maintenance	C	1
Repair Shop			
Storage of oakum	Fire-resistant bin	A	1
Gas burner for soldering iron	Fixed pipe connection and insulated base	A	1
Devices emitting sparks	Good housekeeping	C	1
Storage of machine and lubricating oils	Approved nondrip containers	B	1
Sewing Room			
Electrical connections for sewing machines	Approved installation	A	1
Combustible materials	Good housekeeping	A	1
Storage of Combustible Anesthetics			
Flammable and explosive gases; gases that support combustion	Vaporproof light in storage rooms; separation of explosive gases from others; good ventilation; facilities for storing cylinders so they will not fall	B	1
Wards, Halls and Corridors			
Combustible materials	Reasonable care	A	1
X-Ray Film Storage			
Combustible film (acetate film burns about like cardboard)	Use of special storage room and metal filing cabinets	A‡	1
X-Ray Laboratory			
Overfusing on high-voltage equipment	Installation of adequate voltage	C	1

*The 1 or 1½ qt. vaporizing liquid extinguisher recommended.

†Fixed system for using fusible link with CO_2 or vaporizing liquid extinguishers in laundry chutes.

‡A small hose line should be available for film storage fires.

In New York City, fire started in a defective incinerator in a small hospital. Employees put out the fire and none of the sixty patients was aware of the blaze. There was no damage.

In each instance, serious damage was averted by the prompt, effective use of fire extinguishers. The equipment was available and the personnel know how to use it.

This leads to another phase of fire safety—the training of nurses, attendants, and the engineering staff to act efficiently when a fire emergency occurs. A strong advocate of such training is Leighton M. Arrowsmith, superintendent of St. John's Hospital in Brooklyn, N. Y. He is the present chairman of the Association's Fire Committee, succeeding John H. Olsen, superintendent of the Richmond Memorial Hospital, Staten Island, N. Y.

Each year the probationers at St. John's Hospital receive special training in fire safety. In an address to the hospital section of the recent Greater New York Safety Council convention, Mr. Arrowsmith described this program as follows:

"The demonstration begins with a fire drill for the probationers, and men in the service departments. Each drill is timed carefully and notes made on how the efficiency of the drill may be improved.

"A brief lecture is given regarding the various types of fire and the types of extinguishers recommended for each. Fire protection engineers classify fire as follows:

"Class A—fires in free-burning materials such as wood, paper, some textiles, etc. For these fires the soda-acid, anti-freeze solution, loaded stream, and foam types of extinguishers are recommended. The vaporizing liquid extinguishers may be used effectively on indoor fires.

"Class B—fires in flammable liquids such as gasoline, fuel-oils, grease, cooking fats, etc. The vaporizing liquid, foam, loaded stream, and car-

Key to Check Chart and to the distribution of extinguishing units:

Class A: Fires in ordinary combustible materials such as paper, wood and textiles. Chemical solution (soda-acid), foam, loaded stream, anti-freeze solution and plain water types of extinguishers recommended.

Class B Fires in flammable liquids, oils and greases. Foam, vaporizing liquids, carbon dioxide, dry chemical and loaded stream types of extinguishers recommended.

Class C: Fires in live electrical equipment. Vaporizing liquid, carbon dioxide and dry chemical types of extinguishers recommended.

No. 1: One extinguishing unit for each 2,500 square feet of floor space but not more than 50 feet of travel distance from any point.

No. 2: One extinguishing unit directly at the point of hazard.

bon dioxide extinguishers are recommended.

"Class C—fires in live electrical equipment requiring an extinguishing agent that is a non-conductor of electricity. The vaporizing liquid and carbon dioxide type extinguishers are recommended.

"This is information the hospital staff should have. It might be disastrous to use a soda-acid extinguisher on a gasoline fire, where the stream would only splash and spread the fire. On the other hand, the soda-acid extinguisher should be used in bed fires, etc., where the quenching and cooling effect of water is needed.

"After these points are made, we begin the series of demonstration practice fires. Every probationer is given a chance to use each of the different types of extinguishers on actual fires. By doing this, she becomes familiar with the manner of operation, the effect of the extinguishing stream, and the capabilities of the equipment. We use the following practice fires:

"No. 1—a spill of gasoline. A small quantity of gasoline is poured on the ground along a straight line and ignited. Probationers are given vaporizing liquid extinguishers and allowed to put the fire out. At the same time, it is explained that the vaporizing liquid extinguisher contains a liquid which vaporizes on contact with heat. The vapor, being heavier than air, blankets and smothers the fire. The extinguisher is directed upon the base of the flames, care being taken to keep the fire ahead of the operator.

"No. 2—fire in a container of gasoline. It is not necessary to use all gasoline for this demonstration. The container, a pail or anything similar, can be filled partly full of water and a quantity of gasoline poured on top of this. The vaporizing liquid or foam extinguisher is used, directing the stream against the side of the container to spread the vapor or foam over the burning surface, disturbing it as little as possible.

"No. 3—a bedfire. A fully made bed is used for this and we place in the bed a training dummy, badly scarred but satisfactory for this purpose. A corner of a top blanket is dipped in gasoline and ignited. Each probationer is expected to step up to the burning bed, whip the blanket off and drape one end over the burning section, smothering the fire.

"No. 4—in advance of the demonstration we prepared small paper cartons filled with excelsior. The excelsior is ignited and one or two boxes are stuffed in an over-turned, metal ash can. Probationers are required to walk a distance of about twenty-five feet, pick up a soda-acid extinguisher and put out the fire. Several of these practice fires can be set at once.

"No. 5—a frequent cause of fire in hospitals is the electric iron which is left burning on the ironing board. We set up a board at the very beginning of the demonstration, turn on the current, and watch for developments. Sometimes, the iron will burn completely through the cloth padding or the board will be ignited. If the fire occurs, the vaporizing liquid extinguisher is used to put it out.

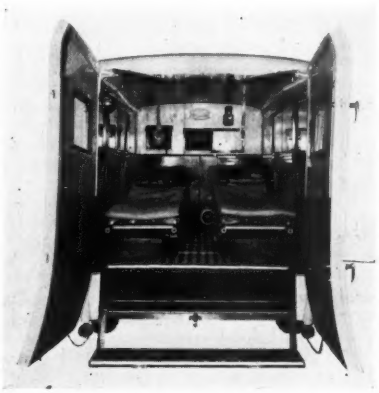
"All of these demonstrations, if arranged in advance, can be made quickly and effectively.

"Immediately after use, all extinguishers are recharged and returned to their respective locations. We are careful to follow the manufacturer's recommendations in doing this work, and all extinguishers are tagged with the date and the name of the workman."

Merseyside Council Designs New Ambulance

Merseyside Hospitals Council, Liverpool, England, has recently designed a new ambulance which, according to Secretary Sydney Lamb, embodies some interesting innovations.

Built to the Council's specifications, the ambulance is designed to carry either two stretcher patients, one stretcher and five sitting patients, or ten sitting patients, two additional tip seats being provided for the use of nurses or attendants. The driving cab is fitted with two seats.



Interior view of Merseyside Hospital Council's newest ambulance, built according to Council specifications.

For speedy conversion from stretcher to seating accommodation, all that is necessary is to push the stretcher platform flush to the compartment side, adjust end doors and drop lid or seat, which hinges up against the body side. Reversing the process gives a swift and simple adjustment from seat to stretcher. The complete operation is said to take but a few seconds.

Heating is effected by means of a unit built with heater pipes leading through the bulk-head blanket cupboard. This keeps blankets warm and aired, and can be used for heating in winter and cooling in summer. The floor is swept upwards at the sides and corners for easy cleaning, and is covered with extra thick rubber. Non-splinter glass is fitted throughout. The rear doors are secured by a patent single-operation "slam" lock, which is easy to operate and effective in preventing rattle.

Hospitals Approved for Internships and Residencies

The American Medical Association has issued its annual list of hospitals approved by its Council on Medical Education and hospitals for internships and residencies.

The list shows 741 approved hospitals offering 8,097 internships, which compares with 734 hospitals and 7,832 internships in 1939. The list has several new and valuable features and should serve as a complete guide for recent graduates who are seeking the most advantageous type of further training. Among the features are: the capacity of each hospital with the number of free beds and the number available for teaching; a differentiation between male and female internship; dental internships; length of internship and compensation and finally the affiliated services. As is customary, the "Essentials in a Hospital Approved for Training Interns" is reprinted on the last pages of the list.

In the list of hospitals approved for residencies in the various specialties, there are 553, offering 4,233 residencies and 649 fellowships. This compares with 518 hospitals offering 3,951 residencies and 611 fellowships in 1939.

$4,000,000 Structure Planned By Hartford Hospital

Preliminary plans for a proposed 20-story $4,000,000 building were revealed recently by James L. Goodwin, chairman of the executive committee of Hartford Hospital, Hartford, Conn.

Photo courtesy The Home News, New York.

Miles Ginsberg, a student of the Bronx High School of Science, receiving one of the awards in the New York essay contest on "The Value of the Hospitals in My Community." Left to right, Morris Meister, principal of Bronx High School; Miles Ginsberg; Charles J. Kraft, Jr., assistant director of Health Education of the Board of Education; and William B. Seltzer, superintendent of Bronx Hospital.

Essay Contest for Students Sponsored by N. Y. Hospitals

As a featured activity of the observance of National Hospital Day in New York City, the Greater New York Hospital Association and the Hospital Council of Brooklyn, under the chairmanship of John H. Olsen, director of Richmond Memorial Hospital, Staten Island, sponsored a hospital essay contest for the students of the city's public schools.

The subject given was "The Value of Hospitals to My Community," and each school submitted its two best essays to the board of judges who selected the first and second prize-winning entries in each of the city's five boroughs.

In the grammar school division, the winners were: Brooklyn—Louise Noviello and William Thompson; Manhattan—May Weissberg and Margaret Thomson; Bronx—Elliott Kanner and Joan Moss; Queens—Betty May Smith and Frederick Landau; and Richmond—Robert Hybel and Kenneth Anderson. The high school winners were, first, Donald Johnson of Port Richmond High School, and, second, Miles D. Ginsberg, Bronx High School.

In the high school group, this essay by Donald Johnson won the first prize award:

I wonder how many people realize the great value of hospitals in their community. Of course, every one understands that they are important as a place where one can go to be taken care of and treated when seriously sick, but does everyone know that they are used for other purposes too? They serve as training schools for nurses and physicians and as scientific institutions where medical research is carried on. Also, many people are benefited by hospitals through clinics. In my estimation, all of these functions are equally essential to a thriving community, and together they make the hospital probably its most valuable asset.

In New York City there are about 200 hospitals with almost 50,000 beds. They take care of approximately 700,000 patients, who amass a total of more than 14,000,000 days in these hospitals every year.

Many of these establishments contain not only private and semi-private rooms for people who can afford them, but also wards for the poorer and less fortunate ones, where very reasonable fees are charged. Both of these sections are kept as clean and neat as possible. At all times we find nurses and doctors in their white uniforms attending to the patients and helping them wash, renewing dressings, giving them medicine, taking their temperatures, and in general doing anything which will make them more comfortable. Their only thought is to help the sick to recover quickly. All equipment is modern, especially in the operating rooms, where thousands of lives are saved yearly. An efficient ambulance squad is maintained at every hospital, ready for all emergencies. The meals are carefully planned; many patients are kept on special diets, and only the best foods are served.

As I have mentioned, nurses and doctors use the hospitals as training schools where they put into practice everything they have learned in school. It is this much needed experience which fits them for later life when they start to practice privately.

Then there is the medical research department. It is there that careful examinations of tissues and chemical analyses are made. This is the behind-the-scenes department whose duties are very important and must be carried out efficiently.

Last, but not least, come the clinics which treat over 2,000,000 people every year, charging nominal fees and often nothing at all. They give practically every type of medical treatment. Furthermore, we shouldn't forget the visiting nurses who come to the individual homes. This is an essential branch whose activities are widespread.

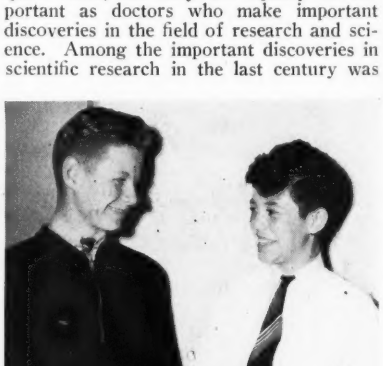
In my own community, I know that all these departments are in operation because I have had opportunity to come into contact with them all. Conditions here are so varied that they all are needed. The hospitals are not overcrowded, and their facilities are modern. Last year our three voluntary hospitals admitted 14,201 patients while they carried on their other activities at the same time.

I hope that all, when they hear of National Hospital Day, will take a little time to think about the extensive activities of hospitals, as I have done, and realize how really valuable they are to our community.

Margaret E. Thomson, in the eighth grade of Public School No. 132, Manhattan, won second prize in that borough with this essay:

Differing from the primitive hospitals in the time of Florence Nightingale, the hospitals of today are advanced in doctors, material, capital and scientific progress. Every year there are approximately 600 interns graduating from medical schools. Some of these interns are destined to make great discoveries in the world of scientific research, while others become community doctors. The profession of medicine is not an easy path to riches; a successful doctor must be a hard and constant worker. He has little personal liberty and must be ready for emergency night and day; he must study in his leisure, otherwise the advancement of medical science will pass him by and he will fall into the rank of the inefficient.

Community doctors do not often acquire fame, but they are equally as important as doctors who make important discoveries in the field of research and science. Among the important discoveries in scientific research in the last century was



Robert Hybel and Kenneth Anderson, first and second essay prize winners, respectively, in Richmond Borough.

the invaluable cure of cancer by Pierre and Madame Curie. This is not always a cure if the disease is much deeper than the surface. This possible cure by radium treatment is being used in cancer hospitals all over the world. That humane discovery has made it possible for many people suffering with this excruciating pain to have hope of banishing it and once more acquire good health.

The standards of good health are rising rapidly with the increase of good doctors and hospitals. If we did not have one or more hospitals in each community in our country, many of our citizens would suffer and die of accident and disease, because they did not have proper care. Many of the people in some of the larger communities cannot afford medical care for these unfortunate people and clinics are provided in some of the larger public hospitals.

Many children, who would otherwise suffer with sore throats and respiratory diseases may go to the Manhattan Eye and Ear and Throat Hospital and have their tonsils taken out free of charge, if their parents cannot afford it. There are many of these hospitals in New York, including the Medical Center which is one of the best in the world. People living in the vicinity of Medical Center are very fortunate to be near such a unit of hospitals. It is located between Broadway and Riverside Drive and 168th Street in New York City. It is composed of many buildings that range from training schools and research laboratories to institutions for the mentally diseased. Many of the children in my own school whose parents cannot afford their own doctors and dentists go to the clinics in Medical Center.

The Neurological and Psychiatric Institute is, as a rule, very expensive for any kind of mental treatment, but in cases where it doesn't cost too much for them to keep their patient, they do. Some of these people, if their illness is not permanent, are made normal in sometimes two years or even less than that. The treatment in all branches of the Medical Center is the most scientific and up to date. This hospital and many others in New York have done much to promote good health in their community.

Most people are very grateful for these hospital services, but there are others who have never stopped to think about it. For people like that articles such as this are written to make them realize the good care they get in American hospitals.

The board of judges for the essay contest included Homer Wickendon, director of United Hospital Fund of New York; W. Crane Lyon, executive secretary of the Hospital Council, Inc., of New Jersey; Mrs. Ethel Prince, secretary of District 14 (Brooklyn) of the New York State Nurses Association; Frank Van Dyk, executive director of Associated Hospital Service of New York, and Alexander Massell, principal of Central High School, New York City.

California Plans Join

Arrangements have recently been completed to have the approved hospital service plans in California—the Insurance Association of Approved Hospitals, San Francisco and Oakland, and the Associated Hospital Service of Southern California—join with the California Physicians Service, sponsored by the California Medical Society, in the enrollment and service of subscribers.

A joint acquisition committee has been formed from the three groups, with J. Philo Nelson in charge of enrollment for the three organizations in San Francisco and William G. Ebersole in charge of activities for Southern California with headquarters in Los Angeles.

Program Announced for New England Institute

The first New England Institute for Hospital Administrators will be held Sept. 2 to 14 at Harvard Medical School, Boston, Mass. The Institute will be sponsored by the American College of Hospital Administrators, the New England Hospital Assembly and the Hospital Council of Boston in cooperation with Harvard University Medical School, Boston University School of Medicine and Tufts Medical School.

Under the direction of Dr. Henry M. Pollock, administrator, Massachusetts Memorial Hospitals, Boston, an excellent program has been arranged, consisting of two lectures each morning, field trip demonstrations in the afternoons, and round table sessions in the evenings.

The course of lectures is as follows:

"The Place of the Trustee in a Voluntary Hospital," Samuel Stewart, Central Maine General Hospital, Lewiston, Me.

"Hospital Organization and Administration," James A. Hamilton, New Haven Hospital, New Haven, Conn.

"Organization of the Nursing School," Miriam Curtis, Cooley Dickinson Hospital, Northampton, Mass.

"Admitting Procedures, Emergency Room Problems, Clinical Records"—Round Table, Dr. W. W. Knowlton, Boston Lying-In Hospital, Boston.

"Staff Organization," Dr. J. B. Howland, Collis P. Huntington Memorial Hospital, Boston.

"Housekeeping," — Round Table, Katherine J. Donovan, Massachusetts General Hospital, Boston.

"Medical Social Service," Ida Cannon, Massachusetts General Hospital, Boston.

"Hospital Construction, Modernization and Plant Maintenance," Dr. Henry M. Pollock.

"Maintenance and Mechanical Departments"—Round Table, Ralph Perkins, Boston Dispensary, Boston.

"Hospital Accounting," William A. Dawson, United Hospital Fund, New York, N. Y.

"Hospital Legal Problems," Alexander Wheeler, Children's Hospital, Boston.

"The Medical Examiner in Relation to Hospital Administration," Dr. William J. Brickley, Medical Examiner of Suffolk County, North District, Boston.

"Business Office and Management"—Round Table, S. D. Kaufman, Beth Israel Hospital, Boston.

"Laboratory Services in Small Hospitals," John T. Morrison, Commonwealth Fund, New York City.

"Relationship of the Hospitals to Public Health and Government Agencies," Dr. Charles F. Wilinsky, Beth Israel Hospital, Boston.

"Laboratory and X-Ray Extension Service," Frank E. Wing, Boston Dispensary, Boston.

"Purchasing," Dr. N. A. Wilhelm, Peter Bent Brigham Hospital, Boston.

"Food and the Patient," Dr. Claude W. Munger, St. Luke's Hospital, New York City.

"Housekeeping, Laundry Management and Linen Control," Frances C. Ladd, Faulkner Hospital, Jamaica Plain, Mass.

"The Part Played by the Hospital in the Field of Education," Dr. B. W. Black, Alameda County Hospital, Oakland, Cal.

"The Soul of the Hospital," Monsignor Maurice F. Griffin, trustee, American Hospital Association.

The registration fee for the New England Institute is $25, and enrollment is limited to hospital people in the New England states and Maritime provinces. All requests for information relative to this institute should be addressed to Dr. Albert G. Engelbach, Cambridge Hospital, Cambridge, Mass.

THE HOSPITAL CALENDAR

Aug. 11-13. National Hospital Association, Houston, Tex.

Sept. Maine Hospital Association, Lakewood Inn, Lakewood, Me.

Sept. 13-15. American Protestant Hospital Association, Hotel Statler, Boston, Mass.

Sept. 14-16. American College of Hospital Administrators, Hotel Statler, Boston, Mass.

Sept. 16-20. American Hospital Association, Hotel Statler, Boston, Mass.

Oct. 16-17. Missouri Hospital Association, Connor Hotel, Joplin, Mo.

Oct. 21-24. American College of Surgeons, Hospital Standardization Conference, Stevens Hotel, Chicago, Ill.

Oct. Alberta Hospital Association, Palliser Hotel, Calgary, Alta.

Oct. Saskatchewan Hospital Association, Regina, Sask.

Oct. Ontario Hospital Association, Royal York Hotel, Toronto, Ont.

Oct. British Columbia Hospital Association, Empress Hotel, Victoria, B. C.

Oct. Vermont Hospital Association, Montpelier, Vt.

Nov. 1-2. Kansas State Hospital Association, Lamer Hotel, Salina, Kans.

Nov. 13. Colorado Hospital Association, Denver, Colo.

Nov. 16-17. Oklahoma State Hospital Association, Skirvin Hotel, Oklahoma City.

Dec. 5. Utah State Hospital Association, Salt Lake City, Utah.

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Feb. 26. Texas Catholic Hospital Conference, Galveston, Tex.

Feb. 27-Mar. 1. Texas Hospital Association, Galveston, Tex.

Mar. 3-6. Association of Western Hospitals, Fairmount Hotel, San Francisco, Cal.

Mar. 12-14. New England Hospital Assembly, Hotel Statler, Boston, Mass.

April 24-25. Mid-West Hospital Association, Kansas City, Mo.

Bowen Found Guilty In Manteno Trial

A. L. Bowen, director of public welfare in Illinois, was found guilty on June 26 by Judge James V. Bartley in the Kankakee County Circuit Court of gross omission of duty in connection with the typhoid epidemic last year at the Manteno State Hospital, Manteno, Ill. (HOSPITAL MANAGEMENT, Nov., 1939).

It was the second time Bowen faced the court on the charge. He was tried by a jury last February, but Judge Bartley dismissed the jurors when they were unable to reach a verdict after deliberating 96 hours. Attorneys for both sides then agreed to let Judge Bartley decide the case on the basis of testimony given at the trial.

In his ruling, Judge Bartley upheld the contention of State's Attorney Samuel Shapiro that the epidemic, as a result of which 60 persons died, was caused by the water supply from four polluted wells on the grounds at Manteno and that Bowen had ignored public health department warnings that the wells were contaminated. He said further: "All human life depends upon safe drinking water, and it was the duty of the defendant as state welfare director to provide safe drinking water for all persons under his jurisdiction."

The maximum penalty possible under the verdict would be a $10,000 fine and removal from office. Defense Attorney John A. Mayhew's attempt to enter a motion for a new trial was forestalled by Judge Bartley, who set July 11 for hearing on any motions.

Hospital Group Takes Part In Credit Convention

The hospital and professional groups were given due consideration at the twenty-eighth annual convention of the National Retail Credit Association, held in San Antonio, Tex., June 17 to 20, through a series of meetings held during the three principal days of the convention. Alvah Conner, business manager of The Medical and Surgical Clinic, Wichita Falls, Tex., served as chairman, with Bryce L. Twitty, director of Group Hospital Service, Inc., Dallas, serving as co-chairman.

"The Necessity of Public Liability, Compensation and Mal-Practice Insurance to Doctors, Clinics and Hospitals," was discussed by J. L. Davenport, claim department manager, Texas Insurance Association, Dallas. Fred Walters, business manager of Memorial Hospital, Houston, talked on "The Duties of Business Managers," and A. H. Cadwallader of Nix Hospital, San Antonio, spoke on "Group Hospital Service and Its Value to Doctors, Hospitals and Communities."

Other talks included: "The Value of Credit Reports in the Collection of Medical Accounts," by Charles M. Reed, general manager, Retail Credit Men's Association, Denver; "The Necessary Cooperation of Superintendents and Business Managers with Doctors," by Dr. Joseph Gilbreath, Austin; "Construction and Application of Partnership Contracts as They Affect Private Practitioners and Partnership Associations," by Mr. Conner; and "From a Professional View, Why Are Some Doctors' Secretaries More Valuable Than Others?" by Dr. W. R. Russ, San Antonio.

Negro Group Plans Hospital in Louisville

The Rev. Amos H. Carnegie, executive secretary of the National Negro Hospital Foundation, Inc., announced this month that plans are being made for a hospital in Louisville, Ky., in which Negro physicians, surgeons and nurses may be trained.

According to a nation-wide survey of hospital conditions for Negroes recently made by the Foundation, there are only four public hospitals that permit Negroes to practice in them and only three permit it exclusively. A city death rate for Negroes 149 per cent above that for white people and a rural death rate of 187 per cent above that for white people are attributed to inadequate hospital facilities for the race. It is such conditions the foundation seeks to remedy.

St. Mary's Hospital In Golden Jubilee

The golden jubilee of St. Mary's Hospital, East St. Louis, Ill., was celebrated June 4 with a pontifical high mass at which Bishop Henry Althoff officiated. The mass was preceded by a processional from the old hospital building, erected 50 years ago. The Poor Handmaidens of Jesus Christ, who form the staff of the hospital, a group of doctors and nurses, 30 priests and three monsignori were in the line of march.

Dr. E. S. Bennett Named Head of Los Angeles Hospital

Dr. Edwin S. Bennett, for the last four and one-half years medical director of the Olive View Tuberculosis Sanatorium at San Fernando, Cal., was recently appointed superintendent of the Los Angeles County General Hospital by Rex Thompson, Los Angeles County Superintendent of Charities.

The position, which was created recently by the Board of Supervisors to replace the one of executive director of the institution, was filled by a civil service test. Dr. Bennett was second of the three highest candidates on the list of those who took the examination, with a rating of 93.83.

For several years there has been difficulty at Los Angeles County Hospital and for the past year the institution has been without a superintendent. When informed of his appointment, Dr. Bennett admitted that he was assuming one of the "hottest of hot spots" in existence. "I'm convinced, however," he said, "that there is no basic trouble in the hospital.

"The problem has been, as I see it, a lack of coordination, esprit d'corps and employee morale. I think that it can be corrected by giving the employees realization that someone will be there who is ready to take all the responsibility for the hospital's administration. There will be mistakes, naturally, but I hope they will be few. I have no preconceived ideas on what my general administrative policy will be," Dr. Bennett concluded.

Mr. Thompson said that his choice of Dr. Bennett had received unanimous support of the hospital's Advisory Committee, a lay body, after committee members had interviewed the highest ranking candidates in the civil service tests.

Dr. Bennett was born in New York City in 1888. His premedical education was gained at Tufts College in Massachusetts. He graduated from New York University and Bellevue Hospital Medical College, and served his internship at the French Hospital and Sloane Maternity Hospital, New York City.

Between these internships, Dr. Bennett went to France where he was attached to Hospital No. 32 Annex, which was part of the Fifth French Army. When the United States entered the war, he returned to this

country and entered the American Army, serving at Fort Benjamin Harrison and Camp Sherman as a member of the Tuberculosis Examing Board. In 1918, he was transferred to the permanent staff of the U.S.A. General Hospital No. 16 in New Haven, Conn., which was a teaching hospital in tuberculosis for Army physicians. He was discharged in 1919.

Following the war he entered the service of the Metropolitan Life Insurance Co. Later he entered private practice in Los Angeles, where he specialized in diseases of the chest. During this time, from 1921 to 1935, he was a member of the attending staff of the Los Angeles County General Hospital, a member of the visiting staffs of the Good Samaritan and Queen of the Angels hospitals, and chief of the tuberculosis clinic of the Good Hope Hospital Association. For the past six years he has been assistant clinical professor of medicine at the University of Southern California.

Northeastern New York Hospitals Elect

Miss Palma Ferraro, superintendent of the Leonard Hospital, Troy, N. Y., was elected president of the Northeastern New York Hospital Associations, at its annual meeting held June 20 at the Mary McClellan Hospital, Cambridge, N. Y.

Other officers named were: T. T. Murray, Memorial Hospital, Albany, vice-president, and Miss Rose Q. Strait, Glens Falls Hospital, Glens Falls, secretary and treasurer.

The meeting was held at Cambridge in honor of Miss M. M. Sutherland, superintendent of Mary McClellan Hospital, who retired from active service on July 1.

Boston Plan Shows New Color Film

"The Open Door," an educational color film with sound, produced by Associated Hospital Service, Boston, was shown recently at the Boston City Club to a large audience of business executives, hospital superintendents and staff members, and the press.

The three-reel picture is a general explanation of how a Blue Cross membership opens the door to the hospital for the person of moderate means. The first reel is a dramatization, with a professional cast, of a hospital emergency, and the film continues with the story of the origin and development of the group hospital service movement in this country.

Who's Who in Hospitals

CHARLES S. WOODS, M.D., formerly superintendent of St. Luke's Hospital, Cleveland, Ohio, has been appointed general superintendent of Methodist Hospital, Peoria, Ill., effective June 10. Dr. Woods has been a member of the Board of Hospitals and Homes of the Methodist Church since the creation of the board in 1920. He is an active member of the American College of Hospital Administrators, the American Hospital Association, the American Protestant Hospital Association, the National Methodist Hospital Association and the American Medical Association.

CECIL C. HURIN, formerly with the Methodist Hospital of Southern California, Los Angeles, has been named administrator of the Jennie Edmundson Memorial Hospital, Council Bluffs, Ia., succeeding the late MRS. EMMA LUCAS LOUIE.

DR. R. A. ANDERSON has been named medical director of the Blue Mountain Sanatorium, Walla Walla, Wash. He was formerly associated with the Sunnyview Sanatorium, Oshkosh, Wis., and the Oakland County Sanatorium, Pontiac, Mich.

DR. THOMAS L. FOSTER, assistant superintendent and clinical director at the Larned State Hospital, Larned, Kans., has been named superintendent of the Osawatomie State Hospital, Osawatomie, Kans., succeeding DR. RALPH M. FELLOWS.

L. C. AUSTIN, superintendent of Menorah Hospital, Kansas City, Mo., was recently elected president of the Retail Credit Association of Kansas City.

RAY E. BROWN, auditor and tax supervisor of Cleveland County, N. C., has been elected superintendent of the Shelby Hospital, Shelby, N. C., by the hospital's board of trustees. He succeeds ELLA MACNICHOLS, who resigned recently after serving as superintendent for almost 17 years.

LUCILLE JAKES, superintendent of Jasper County Hospital, Rensselaer, Ind., since April, 1937, has resigned, effective June 10. DOROTHY DITTY has been named to succeed her.

Directors of the Evangelical Deaconess Hospital, Milwaukee, Wis., have announced the appointment of REV. J. P. MEYER as superintendent of the institution, succeeding REV. PAUL WENDT, who recently resigned.

DR. D. W. POLLARD, acting superintendent of General Hospital, Minneapolis, Minn., since Jan., 1939, has been elected permanent superintendent by the city welfare board.

F. M. MOLGREN has been named manager-superintendent of the St. Olaf Lutheran Hospital, Austin, Minn.

JAMES F. MANLEY has been named superintendent of Locust Mountain State Hospital, Shenandoah, Pa., succeeding FRED BRENNAN.

MILDRED E. SMITH has been appointed superintendent of the Cohoes Hospital, Cohoes, N. Y., effective June 16. Miss Smith was formerly superintendent of Snug Harbor Hospital, New Brighton, Staten Island, N. Y.

ELIZABETH HARDING has resigned as superintendent of Lakewood Hospital, Lakewood, Ohio, a post she has held since 1935.

Deaths

OLIVE T. FISHER, 80, former superintendent of the Cincinnati Hospital School for Nurses, now the University of Cincinnati School of Nursing and Health, associated with General Hospital, died June 11. Miss Fisher was the second superintendent of the nursing school, serving in that capacity from 1893 to 1911. She was instrumental in working for a bill, now a law, for registration of nurses in Ohio, and was one of the first women to work for a graduate nurses association in the state of Ohio.

DR. SAMUEL J. WATERWORTH, 66, chief of the surgical staff of Clearfield Hospital, Clearfield, Pa., died June 6 from a heart attack. Dr. Waterworth organized the Clearfield Hospital in 1900 and served as visiting staff surgeon until 1925 when he was named surgeon-in-chief and chief-of-staff, posts which he held continuously until his death. He was an outstanding general surgeon, a leader in goitre work and an authority on cancer.

Dr. Waterworth was a member of the American Medical Association, American College of Surgeons, American Association of Industrial Surgeons, American Association for the Study of Neoplastic Diseases and other medical societies.

Five Major Factors to Consider When Remodeling the Food Department

By FRED SCHMID
Director, Engineering Department, Albert Pick Co., Inc., Chicago

This is the seventh of the series of articles on the modernization of the various departments and services in the hospital.

If I were managing a hospital and wanted to determine whether there was room for improvement or modernization of my food preparation and serving facilities, I would first be certain of the following:

1. Policy
2. Personnel
3. Organization
4. Method
5. Equipment

Taking these one at a time, I would think of them as follows:

POLICY. Based on room rates, just how high a standard of food and service should be maintained throughout the hospital, that is, for patients, doctors, nurses and help? Could the standard of the food and service play a more important part in the "merchandising" of the hospital as a whole? Could we operate a visitors' luncheonette and fountain room to advantage?

PERSONNEL. Are the right people at each given position in the dietary department, including the dietitian? Are they the best available? Would a change here and there give new "life" to the dietary department that might be reflected in food and service?

ORGANIZATION. Is the work of everyone in the dietary department properly coordinated and, if not, to what extent is the lack of coordination affecting the food and personnel?

METHOD. Is the present method of food service most efficient? Would an investment in a change from floor service to central service be justified on a basis of

A. Payroll savings?
B. Food control?
C. Revenue that could be obtained from space on upper floors now occupied by floor serving kitchens?
D. Centralization of between-meal nourishment service?

Is the present method of feeding doctors, nurses, and other help most practical? Is the layout of these dining rooms correct for

A. Greatest satisfaction to those being served?
B. Lowest cost of food and service?

EQUIPMENT. Is any of the present equipment inefficient either from a standpoint of

A. Lack of facility?
B. Effect on result of raw or finished food products?
C. Effect on standard of service?
D. Cost of operation?

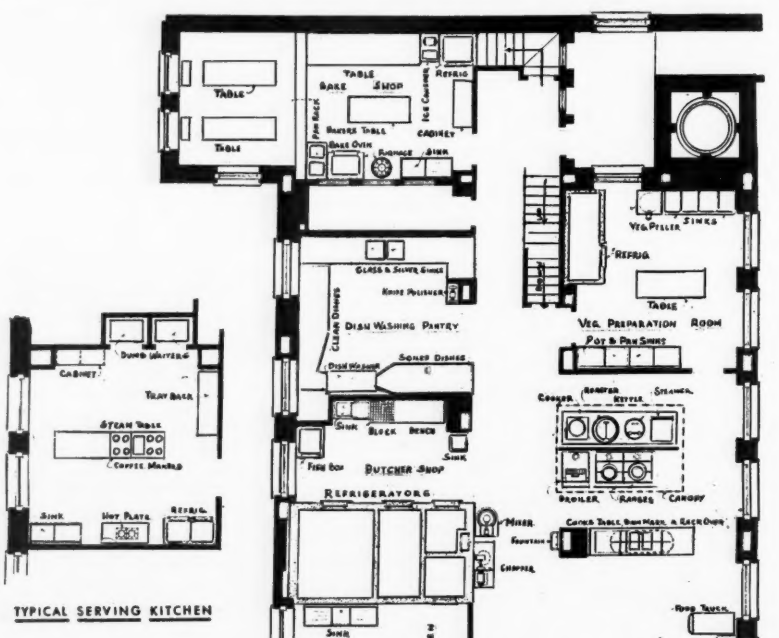
If any of the above is true, can the investment in new equipment be justified on the basis of either

A. Improved food service?
B. Savings in operating costs?
C. Saving in payroll?
D. Effect on personnel?

With the facts concerning these five points set down on paper, I would next make a list of the changes I wanted to make in any one of the five places, that is, policy, personnel, organization, method or equipment.

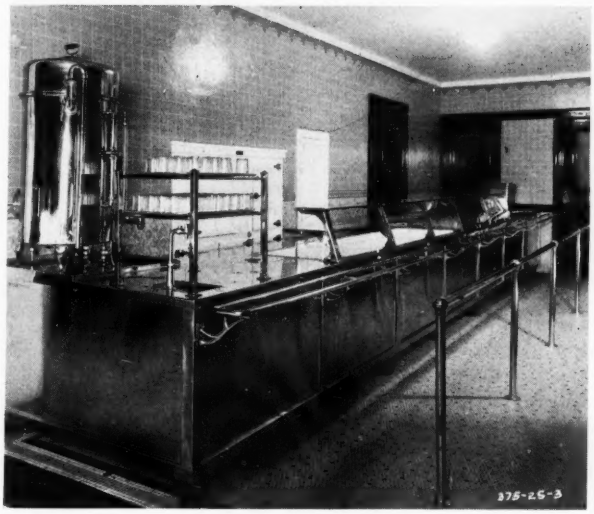
Where there would be a cost involved, I would get approximate estimates on the work or equipment and then present a comprehensive recommendation supported with facts and figures to my Board of Directors and ask for an appropriation of an amount of money to carry out my plans.

If the Board, as they sometimes do, appropriated a lesser amount than I had requested, I would allocate whatever dollars I was given to the items on my list in the order of their importance.



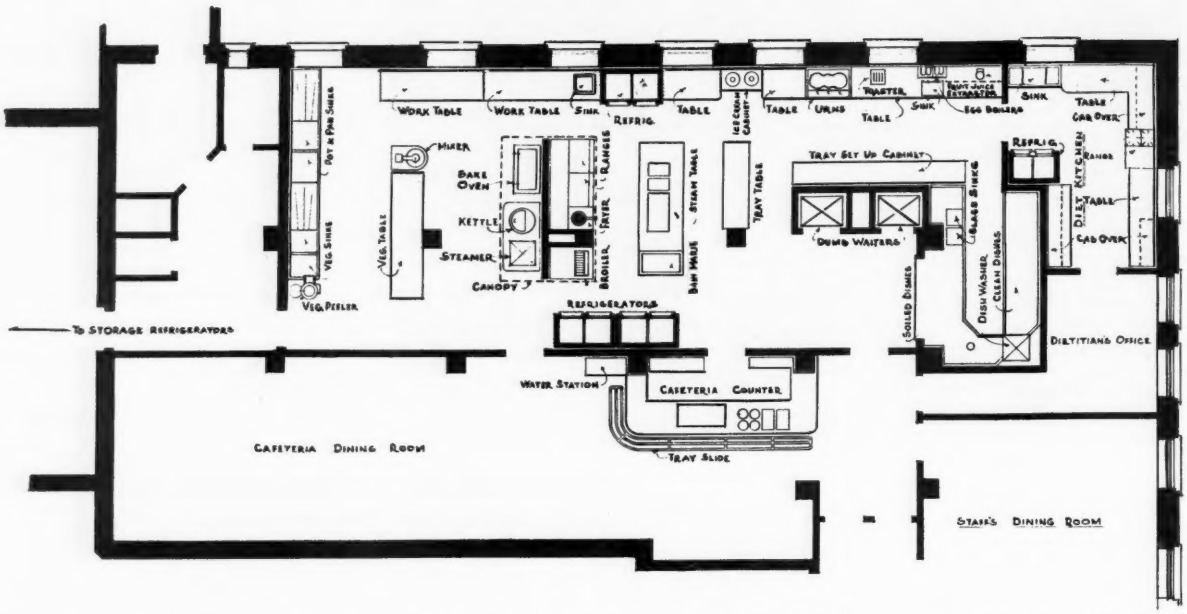
An average floor service type of layout is illustrated in this plan of the main and serving kitchens in the 155-bed Provident Hospital, Chicago. Architect, Schmidt, Garden & Erikson.

(Left and below) Two views of the visitors' luncheonette at St. John's Hospital, Springfield. This represents the type of accommodations that visitors will learn to expect in every modern hospital with a plan for service of a limited menu of hot and cold foods and soda fountain items.



(Left) The nurses' cafeteria in Mercy Hospital, Chicago, showing the addition of new equipment in an old room.

(Right) A view of the main kitchen of St. John's Hospital, Springfield, Ill., showing one of the two tray conveyors used. This represents a high development of tray set-up in a central service kitchen. Architect, Henry R. Helme, Springfield.



A good, typical small central service layout is illustrated in this plan of the central service kitchen in the Moline Public Hospital, Moline, Ill., which has a capacity of 140 beds. Architect, William H. Schulzke, Moline.

My next move would be to call in the best talent available with whom I could take counsel for spending the money involved to the best possible advantage. For instance, if my problem had to do with organization and food control, I would call in one of the many firms having available accountants specialized in food control.

Or, if I needed judgment as to the best method of food service, as for instance central vs. floor service, and was not sure of how best to invest in new equipment, I would call in some company that had men of reputation and experience and work out a basis for securing their judgment and advice. If my problems entailed structural, mechanical, or architectural changes, I would employ the services of an architect, knowing that whatever I paid him as a fee he would save for me in improved results and savings in purchases. Most architects today can also supply counsel on matters concerning color and design.

In every case the counselors having related problems should be brought in to contact with one another at the outset, and once having selected my counselors I would stay with them through to the finish of the improvements I wanted to make. I would not deal competitively on equipment if the people supplying such equipment were unable to contribute anything in the way of experienced opinions for the improvement of my general plans. It has long since been established that one worth while idea may be of greater value than any saving in the purchase price of equipment. At every hand there is evidence of fixtures and equipment having been bought without proper study as to their application to the problem involved. As a result, even though the users of such fixtures or equipment are not conscious of it, the working facilities are affected and there is a constant operating expense that might have been avoided if proper counsel had been consulted before actual equipment purchases were made.

I don't think anyone will contest the fact that hospital executives, hotel and restaurant men have one failing in common and that is that they do not maintain the "back end" of their house as well as they do the "front end." I suppose it is natural to some extent because of the fact that the public does not see what is "back stage" and, therefore, there is no point to considering investments in this area.

Even where an investment is made, sufficient allowance is not set up in the operating figures for "repairs, maintenance, and depreciation." As a consequence, new funds are never available for replacement of obsolete equipment or repair and maintenance of usable items, and before many years pass all equipment behind the scenes is in an unsanitary, unsightly and, in many cases, unusable condition.

While the condition of the building and equipment is obvious the mental reaction and the morale of employees as a result of these conditions is not so easily noticed or its effect on food or service so easily measured.

Whatever excuse the hotel or restaurant man may be able to offer for conditions of this kind to exist in their fields, there is no excuse, in my opinion, that hospital executives can offer for "compromising" the public health, where the dietary department places so important a part in the treating of patients and in the efficiency of its doctors, nurses and others.

It is my opinion that future hospital plans will include more "open" kitchens and that the preparation and service of food will be dramatized more than it is at present and that in this way the dietary departments will play a more important part in the merchandising of the hospital as a whole.

It is also my belief that more hospitals in the future will provide facilities for feeding of visitors with a luncheonette type of service, serving a limited menu of hot and cold food, soda fountain items, cigars, cigarettes, and candies. Invariably such a room will receive enough additional support from the neighboring public as to make it profitable. It will also serve as a good "off-hour" room for food service to doctors, interns and other members of the hospital staff.

Consider Quality, Quantity, Time and Price When Purchasing Printed Forms

By HERMAN ZAAGMAN
Purchasing Agent, Butterworth Hospital, Grand Rapids, Mich.

Many developments in the printing and lithographing field have been made available to the purchaser of hospital printed forms. There are numerous factors to consider before placing any order or doing the job in your own plant if equipment is available.

So many purchasers have been led to believe that one printer or one machine can produce in a satisfactory and an economical manner all the printed forms and pamphlets used in the ordinary operation of a hospital. It is easy to forget that many forms used are numbered, padded, perforated, pen ruled, scored or die cut. It takes expensive equipment to accomplish these additional services and should be included when figuring the quality and cost of printing and before purchasing any equipment.

Every process in the printing and lithographing field has become a real specialty. The speed, quality of work and accuracy with which such processes as the "photo-lithograph," "combination run" and the ideas developed in the field of "one time carbon" forms, mean a real saving to every hospital executive who investigates thoroughly their use and practical value.

The word printing in daily conversation covers everything from an ordinary press job to fine colored lithography. There is a great difference, however, in the method, quality of work and price on the various types of forms.

A thorough knowledge of each process and procedure of all the different types of equipment is necessary before hospital printed forms can be purchased intelligently. There is no one machine or process that fills every need. Each type of equipment and method has a definite place. We will not attempt to explain the different processes as an entire textbook could be written explaining the machines and methods and the advantages and disadvantages of each process covering job press work, lithograph, mimeograph, multilithograph, planograph, photo lithograph, offset and many other methods. An effective and simple way of learning all the different types of work and machines is to visit the plants of each firm specializing in each type of work or machinery.

In an article on this particular phase of hospital purchasing we will endeavor to outline the most important factors to consider before placing the order. The same four points considered in any purchase, namely, the right quality, the right quantity, the right time and the right price, also apply to the purchase of printing.

Quality

In writing about quality we will take the word in the broader sense, namely, the right quality for the use the form is intended, not the best quality. The best quality is not always the right quality to buy, especially in the purchase of printed forms.

The selection of the correct paper stock is the first step to consider in the selection of the right quality. In this connection it is important to standardize. Standardize on the color, the weight, the size and the quality of paper used for similar purposes. For example, the paper used for patients' record forms should be of uniform size, color and quality. Standardization of quality is a great factor in obtaining the most for the printing dollar.

Paper used for temporary forms need not be of the same quality as those used for permanent records. The process used also has some bearing on the selection of the paper stock. The stock recommended for use on mimeographed forms is a good example.

Paper stocks as shipped from the mills to the jobber or printer usually is sold by the pound and by reams in larger sheets than ordinarily used in hospital forms. One of the most common sizes is 17 in. by 22 in. It is important to consider this factor in the selection of the correct size. The accompanying chart (Figure 1) will show the advantages of selecting the right size. By using this method of determining the size, all possibilities of paper stock waste will be eliminated.

Another factor in the consideration of the right quality is the correct and most economical size of type and form of set-up. Suggestions from your printer on this phase is most helpful. The type to be used should be easy to read and easy on the eyes. This is important, as the cost in almost every case is no more for the proper type.

Is the form to be sent out to prospective patients? If so, it has an advertising value and should be neat and of a better quality of workmanship, paper and set-up than ordinary interoffice and record forms. In this connection the selection of the method of printing is important. A fine, clean cut, lithographed letterhead, for example, is one means of conveying to the prospective patient some idea of the institution behind the letter.

Those of us in the business end of hospital work can appreciate this factor as it is used extensively in business. Go through your files of the last year and you will find the firms you like to deal with most have the finest workmanship and layout on every form sent to you as a prospective customer. On the other hand, this same firm may use the cheapest method and paper for temporary forms such as notices and interoffice communications.

The point I have tried to emphasize is to purchase the right quality for the particular purpose and you will have bought the best quality.

Quantity

The right quantity is the next important step in the consideration of printing. The number of forms used in a given period is the usual way of determining the quantity to buy. In most cases this is the best way, but there are some exceptions. We have in mind a ruled ledger or journal form especially adapted for use in a particular hospital. The type set-up and pen ruling is the most expensive operation. In many in-

This article is the tenth of the series on "More for the Hospital Dollar." Similar articles on other aspects of hospital purchasing will appear from time to time during 1940.

STANDARD FORM SIZES

● The form sizes listed below meet practically any need. Each cuts without waste from standard sizes used by all printers.

Size of Form	Cuts without Waste from Standard Sheet Measuring	Number Obtained from Single Standard Size Sheet	Number of Single Forms Obtained from One Ream (500 sheets) of Paper
2¾ x 4¼ 2¾ x 8½	17 x 22 17 x 22	32 16	16M 8M
3½ x 4¼ 3½ x 8½ 3½ x 17	17 x 28 17 x 28 17 x 28	32 16 8	16M 8M 4M
4¼ x 5½ 4¼ x 7 4¼ x 11 4¼ x 14 4¼ x 28	17 x 22 17 x 28 17 x 22 17 x 28 17 x 28	16 16 8 8 4	8M 8M 4M 4M 2M
5½ x 8½ 5½ x 17	17 x 22 17 x 22	8 4	4M 2M
7 x 8½ 7 x 17	17 x 28 17 x 28	8 4	4M 2M
8½ x 11 8½ x 14 8½ x 22 8½ x 28	17 x 22 17 x 28 17 x 22 17 x 28	4 4 2 2	2M 2M 1M 1M
11 x 17	17 x 22	2	1M
14 x 17	17 x 28	2	1M

Bond and Ledger papers are usually promptly obtainable in 17 x 22, 17 x 28, 19 x 24, 22 x 34, 28 x 34, 24 x 38

Figure No. 1. This shows the advantages of selecting a correct size of paper stock so that all waste is eliminated. Courtesy, Hammermill Paper Co.

stances, for an additional ten per cent in the cost, the quantity can be doubled. It is advisable, if no changes in procedure or personnel are anticipated, to take advantage of the lower price and order the larger quantity.

It is important before reordering any form now used, or when considering new forms, to consult the head of the department for whom the form is to be printed as to any changes in copy, type, paper, color and anticipated changes in quantity or personnel.

Time

There is also a right time to consider in the purchase of printing. Figure 2 shows one method of combining a number of forms and printing in one operation. This is called "combination run." By combining after you have standardized your paper, size, type and copy, there is much to be gained by systematic ordering at regular intervals in the proper quantities.

The question of combining the various quantities is a factor in buying at the right time. For example, if ordering twice each year you may have a variation of over ten different quantities. One type of form is used more than another. You may have use for 30 M. of a size 8½ in. by 11 in. form, 20 M. of a size 5½ in. by 8½ in. By combining these two forms in one job in one operation on one plate, both forms can be run at one time at a saving. The 8½ in. by 11 in. forms and two 5½ in. by 8½ in. forms would be printed on one sheet 17 in. by 22 in. in one operation. This method effects a great saving in the cost of printing and can only be accomplished by foreseeing the quantity needs and ordering at regular intervals for all departments.

Price

What is the most effective way of obtaining the right price? We will assume that you have standardized on all the factors previously mentioned. Some firms have made a special effort to initiate standard forms needed for each operation of any department of almost any type of hospital and carry a full stock of each form in any quantity. These firms issue catalogs of sample forms and are sold at standard prices, according to the quantity purchased. By standardizing and by large volume of production, these firms have done much to bring down the cost of printing to hospitals. It is well to investigate what these firms have to offer before composing a new form for any procedure or reordering. Small hospitals purchasing in small quantities can benefit greatly from this form of merchandising.

Some of the larger hospitals have found it economical to purchase and operate their own printing plants. So many changes have been made in printing processes recently that we even feel it wise to compare the cost of each job or group of jobs with outside sources before proceeding with a job in your own shop, regardless of the investment and all the other factors.

There are other ways in cutting down the cost of printing. How many means of identification have you incorporated in your forms? I know of one hospital using three means of identification on one form used by professional men, namely, a heading in large type, a distinctive colored paper and an expensive die cut tab. Is it really necessary to have all these means? Standardize on one means of identification and you will have gone a long way in obtaining the right price.

After you have taken all these factors into consideration there is a simple method of obtaining the right price to be paid for just what you have decided will be an economical form. A knowledge of quality and use of each method of printing will be your guide in selecting the type of work you expect.

The request for quotation form, Figure 3, shows the method we have in mind. It gives every factor in a simple and clear manner and permits the bidder to quote intelligently. We have found it wise to include even standard stock forms approved by the national organizations on this quotation in the combination system and have realized a saving in many instances. Of course, the originator of the form is invited to bid on the same basis as competitors.

In conclusion we recommend an intelligent survey of every standard or prospective form, taking into consideration the right quality, the right quantity, the right time and the right price, as a means of effecting a substantial saving in the operation of any institution.

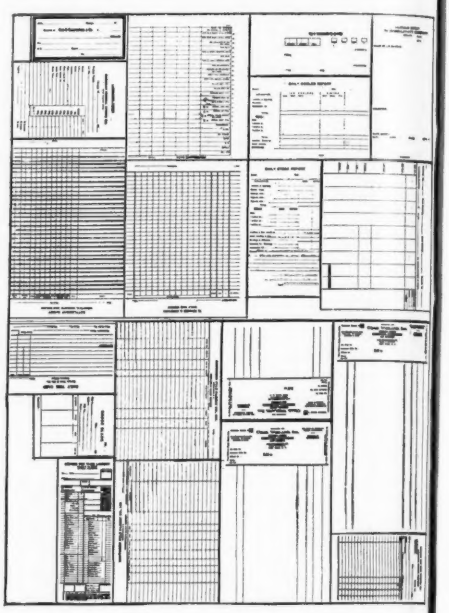
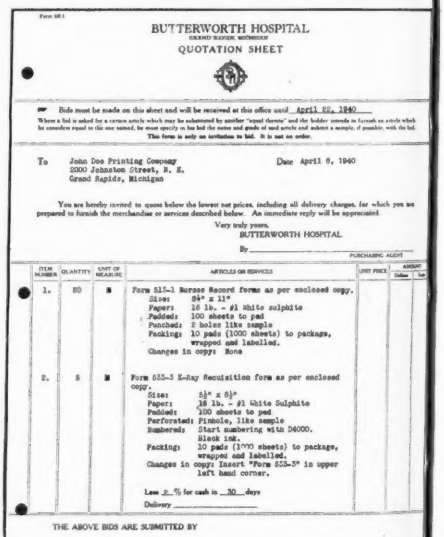


Figure No. 2. This shows on method of combining a number of forms and printing in one operation, which is called a "combination run." Courtesy Workman Mfg. Co.



BUTTERWORTH HOSPITAL
GRAND RAPIDS, MICHIGAN
QUOTATION SHEET

Bids must be made on this sheet and will be received at this office until April 22, 1940

Where a bid is asked for a certain article which may be substituted by another "equal thereto" and the bidder intends to furnish an article which he considers equal to the one named, he must specify on his bid the name and grade of said article and submit a sample, if possible, with the bid.
This form is only an invitation to bid. It is not an order.

To John Doe Printing Company
2000 Johnston Street, S. E.
Grand Rapids, Michigan

Date April 8, 1940

You are hereby invited to quote below the lowest net prices, including all delivery charges, for which you are prepared to furnish the merchandise or services described below. An immediate reply will be appreciated.

Very truly yours,
BUTTERWORTH HOSPITAL
By _____
PURCHASING AGENT

ITEM NUMBER	QUANTITY	UNIT OF MEASURE	ARTICLES OR SERVICES	UNIT PRICE	AMOUNT Dollars	Cts
1.	30	M	Form 815-1 Nurses Record forms as per enclosed copy. Size: 8½" x 11" Paper: 16 lb. - #1 White sulphite Padded: 100 sheets to pad Punched: 2 holes like sample Packing: 10 pads (1000 sheets) to package, wrapped and labelled. Changes in copy: None			
2.	5	M	Form 855-3 X-Ray Requisition form as per enclosed copy. Size: 5½" x 8½" Paper: 16 lb. - #1 White Sulphite Padded: 100 sheets to pad Perforated: Pinhole, like sample Numbered: Start numbering with D4000. Black ink. Packing: 10 pads (1000 sheets) to package, wrapped and labelled. Changes in copy: Insert "Form 855-3" in upper left hand corner.			

Less ___ % for cash in 30 days
Delivery _____

THE ABOVE BIDS ARE SUBMITTED BY

Signature _____ Title _____

Figure No. 3. This request for quotation form gives every factor in a simple and clear manner and permits the bidder to quote intelligently.

As the Editors See It

Hospital White Elephants

In this country we seem to have an insatiable desire to build big things, to excel others in the magnitude of our accomplishments. This may be good policy in business affairs but insofar as hospitals are concerned, it has led to the construction of some that can be described only as white elephants and which, because of their size, will always be handicapped.

While Los Angeles County has built one of the most beautiful hospital buildings to be found in the United States, a mistake has been made in its huge size. At the time this hospital was projected it was pointed out that the county was too large and too scattered to allow successful centralization, but the authorities persisted in their idea and the advocates of decentralization with smaller coordinated hospitals were defeated. What has been the result?

The first difficulty arose over the administration of so cumbersome a hospital. The administrator who had been in charge for many years, who was known to be a competent man and who had intimate knowledge of local conditions, resigned and since that time there has been no effective administration. During the past year the hospital has been operated under a temporary organization and the entire mix-up resulted in a protest from the citizens.

At last a director has been found who has the experience and the necessary background to make a successful administrative officer. If he is allowed to manage the institution without interference he may be successful. He has our best wishes.

A second difficulty arose as a result of the travel distances in the county and it became necessary to establish emergency stations in various parts, reverting partly to the policy of decentralization formerly advocated.

Another white elephant is seen in Louisiana, if one may judge from an editorial in a recent issue of the *Tri State Medical Journal*. According to the editorial, the state has built five large general hospitals within 100 to 200 miles of each other. We have visited only one of these, that in New Orleans, and can support the statement of the editorial that it is an extremely elaborate institution. Whether such elaboration is necessary is questionable and can be answered only by the experience of the future. Most certainly this institution is so large as to be cumbersome and will be very difficult to administer.

New York with its great problem has so far avoided these errors. It has not adopted the idea of extreme centralization in physical facilities nor has it attempted to care for all the indigent sick in city-owned hospitals. Its policy has been to provide a part of the necessary hospitalization of the indigent by paying for their care in voluntary hospitals.

Chicago has its enormous Cook County Hospital which formerly was the educational Mecca of the United States. Structurally, it has avoided the idea of one building and instead has provided a number of distinct units under central control. Because of transportation difficulties it is often necessary to care for certain types of non-paying cases in voluntary hospitals; yet provision for the support of these is inadequate, with the resulting inconvenience to the patient and injustice to the hospital.

One of the great dangers in all these governmentally owned hospitals is that of political interference. Los Angeles County Hospital is controlled by the Board of Supervisors, one member of which is made especially responsible. The result is said to have been undue political interference in management. The editorial quoted definitely accuses the politicians of Louisiana of being responsible for over-hospitalization. In Cook County there has been a gradual deterioration which has been blamed on political interference and as a result the hospital was removed from the approved list of both the American Medical Association and the American College of Surgeons. Recently this state of affairs has been partially corrected and the institution promises to regain a degree of its former prestige.

New York appears to have avoided the political danger or to have overcome it. It has its entire indigent service controlled by a hospital commission, and a statement recently made by the commissioner credits the politicians of the city with keeping hands off. The editorial quoted suggests a similar non-political board for all the charity hospitals of Louisiana. In Chicago we are hopeful that the great county hospital may be taken out of the realm of politics and are waiting developments with some degree of optimism.

The whole question is of particular importance at this time when federal hospital legislation is pending. We should continue to use every effort to get our governmental hospitals under control of independent boards. We should oppose the building of those huge hospitals which are so difficult to administer. We should see that the indigent are given proper care but there is no need of wasting money on extreme elaboration. Finally, we should use every effort to get adequate governmental support for the indigent who are cared for in voluntary hospitals.

Preparedness

Before the United States entered the first World War there had been a certain amount of preparation in the medical department. This consisted chiefly of sending medical officers to work in the war hospitals of the Allies, to observe their methods and to study the organization. As a result the medical department of the army was a reasonably efficient organization in spite of the fact that conditions were entirely different from those found in any experience of the past.

Can the same be said of civilian conditions? There is a great deal of evidence to show that physicians were taken into army service without much consideration of the community which they served and that civilian hospitals were left with inadequate and untrained personnel.

Today we are faced with another world war, and let us hope that we can avoid active participation. However, every indication points to our becoming involved. As a hospital journal we are concerned less with this danger than with that of unpreparedness and therefore we are glad to note the farsightedness of the Sur-

HOSPITAL HIGHLIGHTS

20, 15 and 10 Years Ago

From HOSPITAL MANAGEMENT, July, 1920

Michigan Hospital Association met in Detroit; Dr. Christopher G. Parnall, superintendent of University Hosptial, Ann Arbor, elected president.

Ontario Hospital Association formed with a membership of 55; Barry Hayes of Toronto elected president.

Dr. Lewis A. Sexton, superintendent of Hartford Hosptial, chosen president of the Connecticut Hospital Association at its first annual meeting at Hartford. Twenty-two institutions were represented at the convention.

The Richmond Memorial Hospital, with a capacity of 40 beds, was opened in Staten Island, N. Y.

From HOSPITAL MANAGEMENT, July, 1925

Tenth annual convention of Catholic Hospital Association held at Okauchee, Wis.; Father C. B. Moulinier re-elected president.

Representatives of 25 hospitals of Oregon, Washington and Idaho met in Seattle and organized the Northwest Hospital Associations; C. J. Cummings, superintendent of Tacoma General Hospital, Tacoma, Wash., elected president.

Hurley Hospital, Flint, Mich., opened new $435,000 home with capacity for 250 nurses.

From HOSPITAL MANAGEMENT, July, 1930

United Hospital Fund, New York, announced the establishment of a conference on hospital accounting to promote a uniform system in New York hospitals.

Wesley Memorial Hospital, Chicago, announced preliminary plans for a 30-story hospital.

Dr. Michael J. Thornton was appointed general medical director of the Welfare Island group of New York City hospitals.

geon General. He has presented his viewpoint to the medical and hospital organizations and has enlisted their cooperation and support. These views have also been stated to our Washington representative, as reported elsewhere in this issue of HOSPITAL MANAGEMENT. He is giving consideration to the civilian population who will remain behind to conduct the affairs of the nation as well as to those who will be actually enlisted in the army.

The first step is classification of the physicians of the United States. Recognizing the enormous amount of detail available in the files of the American Medical Association that body has been requested to undertake this classification and is proceeding with the work.

In the emotionalism of the last war the only thought was the needs of the army. Physicians joined the medical corps and frequently left the communities in which they had lived without medical service. Very wisely, this is being provided against and while army surgeons will be needed in great number, the needs of the community will not be neglected. The classification will show where army surgeons can be secured without serious danger to the civilian population. Thus the man who is left behind will not, in any sense, be a shirker. He will be left behind because he can thus serve the country to best advantage.

Another very important point in the classification will be allocation of members of the army medical corps to the duties which they are qualified to perform. Surgeons will, of course, be the class who will be in greatest demand but there will be a place for almost every other specialty, and a serious attempt will be made to fit the man to the job in conformity with his training and experience. The American Medical Association is also making this a part of their classification.

We are not aware what specific steps will be taken to protect the hospital caring for the civilian population but undoubtedly something will be done. A few administrators will be taken from their present positions but the greatest upset will be among the personnel. Dr. Parran has spoken of training technicians, an activity that will be very necessary, but experience shows that the greatest demand will be made on the nursing profession. We are not oversupplied at the present time and nurses cannot be trained in a short time.

In the army the orderly, a man who receives an intensive course of training, relieves the nurse of the non-professional service which is required and even performs some of the less important functions which are usually considered to be professional. In civilian hospitals we have already commenced to use this type of attendant to relieve the nurse of much of the work which she formerly did, but if we actually mobilize an army we will be forced to use this class of personnel much more extensively than we do at the present time. They will require training and this is the time to make plans in order that an adequate supply of skilled attendants, both male and female, may be made available when they are needed.

In his discussion on preparedness the Surgeon General speaks of many other preparations, among them being stocking of supplies which will be greatly in demand. This is his problem and we can render very little assistance but we can support him by a strict economy in their use.

We may or may not agree with the present government and with its policies. That is immaterial in the present instance. It is the government which we have placed in authority and which is responsible for our preparedness in what promises to be a great national emergency. We owe it to ourselves and to our country to support that government in the plans which it is making.

C.H.A. Convention

(*Continued from page* 19)

finds itself in disagreement. It bases its misgivings on an adequate interpretation of the principle of cooperation between public and private agencies, of cooperation between local and the larger units of government, and also upon the necessity of safeguarding in a democracy the legitimate exercise of private initiative.

"The association would view with a measure of alarm and serious concern for the health and welfare of the nation, the extension of a public hospital system which would impede the development of private initiative in the health field."

Cognizance of the war was taken by Archbishop Glennon in his address at the closing session, Friday afternoon. After mentioning that some of them would return to Canada, he expressed his gratification that "we have no barbed wire between us."

"When we look at the face of the earth and see broken hearts, broken minds, mangled bodies and hills of the slain thrown together without regard to dignity of human life," he said, "thanks be to God that in America, so far, we can remain dedicated not to destroy humanity, but to saving, curing and bringing salve to the wounds of humanity and to strengthening it on its way to God."

Father Schwitalla Re-elected

The Rev. Alphonse M. Schwitalla, S.J., of St. Louis University, was re-elected for a twelfth term as president, and The Right Rev. Msgr. Maurice F. Griffin, LL.D., of Cleveland, was re-elected first vice-president.

Other officers elected were: The

Rev. John J. Barrett, Chicago, second vice-president (re-elected); The Rev. John J. Bingham, assistant director of the division of health, Catholic Charities of New York, third vice-president; Sister Helen Jarrell, St. Bernard's Hospital, Chicago (re-elected); and Mother Mary Irene, St. Mary's Hospital, St. Louis, treasurer (re-elected). M. R. Kniefl continues as executive secretary.

Members of the executive board are: Sister Agnes Cecilia, St. John's Hospital, Helena, Mont.; Sister Mary Angela, St. Joseph's Hospital, Lexington, Ky.; Sister Mary Patricia, St. Joseph's School, St. Thomas, Ont. Newly elected to the board were: Mother Mary Rose of the Sisters of Mercy, Pittsburgh, Pa., and Sister Marie Joseph, of the Augustinian Hospitalers of the Mercy of Jesus, Hotel Dieu, Quebec.

N. Y. Plan to Be Extended To Low-Income Groups

Ultimate extension of New York City's Associated Hospital Service plan to employed groups at income levels now considered medically indigent was indicated as a definite objective by Dr. S. S. Goldwater, the new president of the organization and still Commissioner of Hospitals, on the recent occasion of the dedication of the Welfare Island Dispensary. Dr. Goldwater indicated that the extension of the plan to low-income groups is an idea he has long cherished, and that it was his chief reason for accepting the presidency of the Associated Hospital Service a few weeks ago, although he will not take active charge of the work before September.

Discussion of the subject was entirely pertinent at the dedication of a new unit in the city's hospital system, for the reason that, as Dr. Goldwater has said, the city's plans for the care of New York's indigent sick cannot at present be further expanded because of inability to make the necessary capital investment, and the question of how to enable the city's voluntary hospitals to care for about 3,000 patients a day therefore becomes pressing. Payment for this care by the city on anything like an adequate basis is not feasible for the same reason that stands in the way of additional city hospital construction.

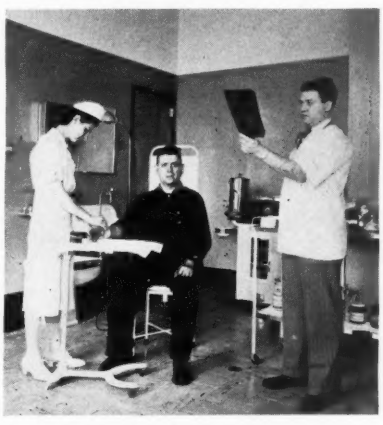
Dr. Goldwater therefore visualizes some plan by which approximately 500,000 New York families now rated as medically indigent, with incomes of $900 a year for individuals or $1,500 for families, can be brought into the Associated Hospital Service. This will of course necessitate careful study of all of the factors entering into the situation, including the minimum payment for ward bed and auxiliary services which would be acceptable to the participating hospitals and the maximum amount which it would be reasonable to ask monthly from employed groups in the indicated income levels. This study will be initiated as soon as possible, in order that the facts may be developed and an approach made to a solution within a few months after Dr. Goldwater assumes the presidency of the Associated Hospital Service, if, as he feels certain will be the case, a feasible plan can be worked out.

Baldwin Locomotive Has New Dispensary

A new dispensary with complete, modern equipment has been opened at the Eddystone, Pa., plant of The Baldwin Locomotive Works. Covering 1,700 square feet, the six-room dispensary was designed after a study of similar facilities provided by such organizations as International Harvester, Armour & Co., United States Rubber, General Motors, Atlantic Refining and Western Electric.

Baldwin's accident frequency last year was 28 per cent lower than in 1938, on a man-hour basis, and the severity of accidents, as measured by working days lost, was reduced more than 50 per cent, according to an announcement made by Charles E. Brinley, president. "We hope," he continued, "to lower still further the number of working days lost through accidents and sickness, thus helping both the employees and the company. Every Baldwin worker has at his disposal both skilled medical personnel and modern hospital equipment.

"A full time doctor and registered nurse have been added to the staff, and the dispensary will remain open under the direction of a trained nurse whenever there are night shifts of workmen."



A view of the new $20,000 dispensary, recently completed by The Baldwin Locomotive Works at Eddystone, Pa.

A novel feature of the dispensary is a dental room, where employees, if they desire, may have dental work performed, paying for the service at moderate cost. All other dispensary facilities, as well as emergency dental work resulting from an accident, are available without charge.

New Hospital for Hillside Society

A new hospital is to be erected on a 52-acre tract in Bellerose, N. Y., it was announced this month by the Society of the Hillside Hospital, which since 1927 has been located at Hastings - on - the - Hudson, N. Y. Ground will be broken this Spring for the building, which will cost approximately $600,000. The hospital will have 125 beds.

Defense Plans by P.H.S.

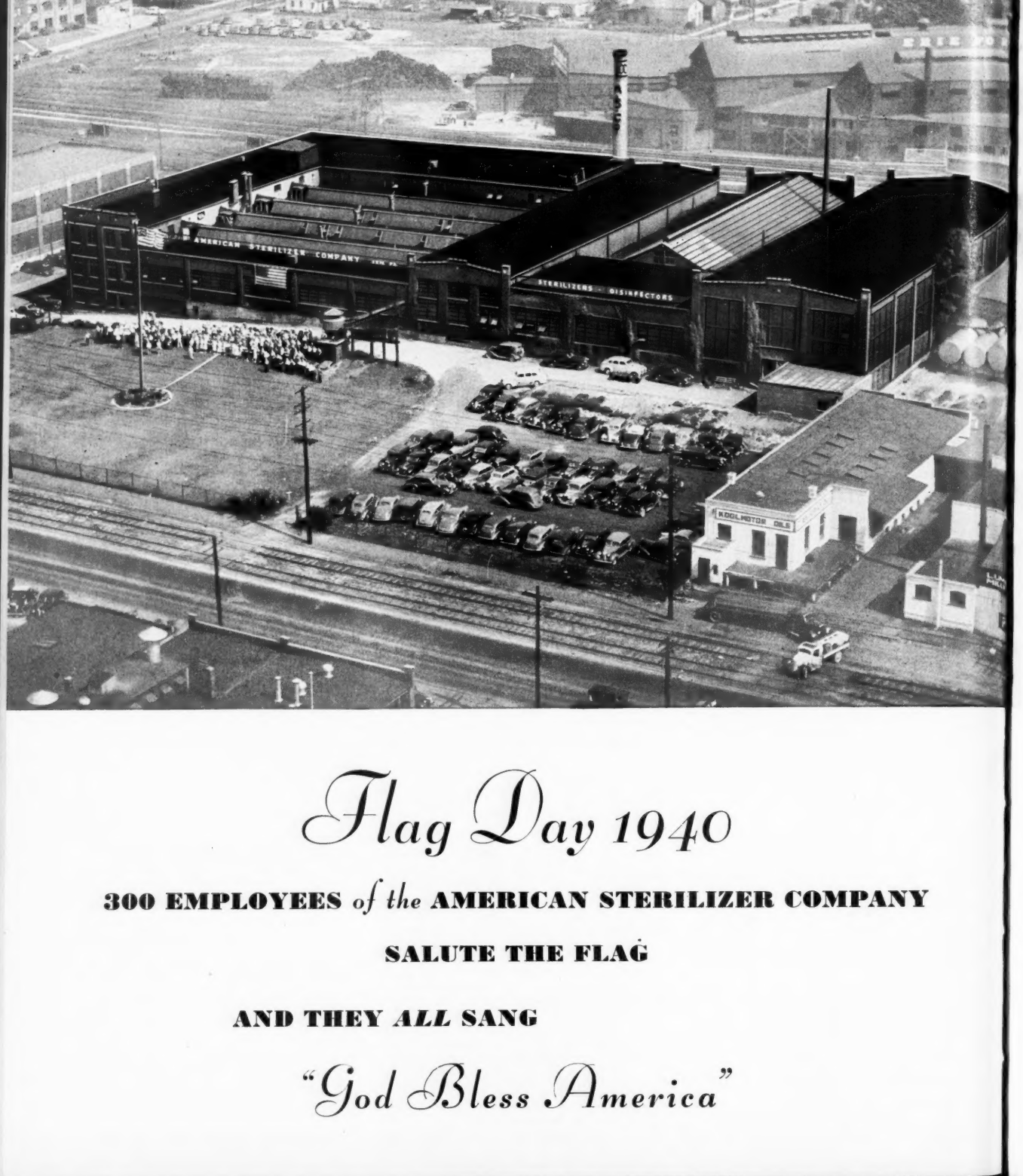
(*Continued from page* 12)

sage in the Senate. Several other measures were given the right-of-way over the Hospital Bill in the two-weeks scramble just before the Republican Convention. Now that Congress is again back in Washington most members seem content just to relax and rest up a bit. With the Democratic Convention coming up July 15 the tendency is to hold off action of all major bills not directly connected with the armament program pending a decision on whether Congress will remain in Washington or go home for the summer.

However, it is almost a foregone conclusion generally agreed to among Washington observers that Congress will remain in session so long as the European situation keeps the world on edge. The coming weeks will probably produce little concerted Congressional activity if the present state of affairs is any indication. The idea is that the legislators should be on the spot "just in case."

Despite this trend there is still a large possibility that the Wagner Hospital Construction Bill will receive the attention of the House Committee and may eventually reach the floor of the House for a vote. However, a prediction to that effect would hardly be warranted at this time. Too much depends on a Congressional state of mind gone jittery over U. S. national safety—a state of mind which has proven almost unpredictable during recent weeks.

THE AMERICAN WAY



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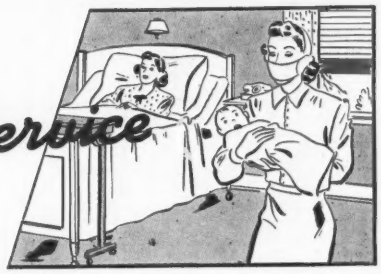
Department of Nursing Service



EDITORIAL DIRECTOR: Helen Esther Gillespie, R.N., Children's Memorial Hospital, Chicago.

Analysis of the Principles Involved in Pressure Steam Sterilization of Instruments

By WEEDEN B. UNDERWOOD
American Sterilizer Co., Erie, Pa.

For many years, the almost universal practice for routine sterilization of instruments has required boiling in water for 20 minutes. In emergency, with permission of the surgeon, exposure is reduced to 10 minutes—and far too frequently, exposure is limited to 3 to 5 minutes.

In boiling, the temperature never exceeds 212° F. and the sterilizing effect is a product of this moderate temperature plus super-abundance of moisture. The shorter periods of boiling will probably kill all vegetative organisms such as streptococcus but they are inadequate for destruction of spores in resistant stages.

Pressure steam sterilization, on the contrary, very quickly heats instruments to a (saturated-with-moisture steam) temperature of 250° F. or slightly higher, and it has been authoritatively shown that the resistant pathogenic spores are destroyed in one minute, (in direct contact with steam) at this range.

In sterilizing instruments we have the great advantage, an advantage that is commonly misunderstood, of this immediate (and direct) contact with steam plus an abundance of moisture, the result of steam condensation as instruments are heated, a film of water which plays over the instruments, providing that element needed for breaking down, dissolving, crusts of dried blood, pus or tissue concealed in joints or crevices.

How Pressure Steam Does Its Work

To clearly define instrument sterilization in pressure steam it is necessary to analyze factors which may have any retarding effect. If instruments are thoroughly washed, if there are no minute crusts concealed in inaccessible grooves, then surface sterilization is all that is required and two or three minutes exposure to steam at 250° F. will render them surely sterile. This perfectly clean condition, however, is not always assured, particularly for instruments which may have been permitted to dry out for some time before washing, and for instruments which have been in storage for a considerable time. To break down, dissolve, these crusts requires (not higher temperature) but some additional time beyond the minimum requirement of 250° F. for one minute, in which the moisture from the steam can soften and permeate them completely.

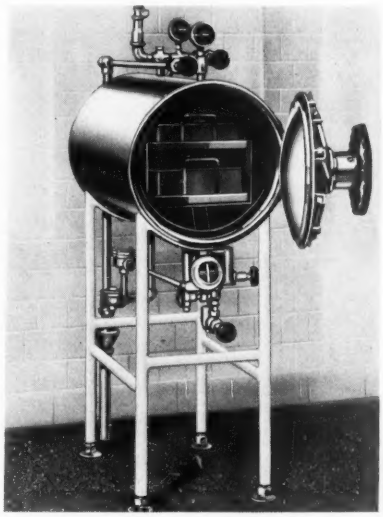


Figure No. 1. Direct steam heated pressure instrument sterilizer. Extremely rapid in performance. With jacket under normal pressure of 17 pounds, temperature of 250° F. is attained in one minute. After sterilization, pressure is exhausted in 15 seconds. Pressure is automatically controlled at any desired range from 15 to 27 pounds pressure. This also illustrates the filing cabinet type tray rack, which is easily removable to permit use of the sterilizer for other purposes.

Recommended Periods of Exposure

For routine sterilization it is excellent practice to establish an exposure period of 10 minutes with the sterilizer regulated to maintain 254° F. (17 pounds pressure).

For emergency sterilization it is desirable to establish a routine exposure of 5 minutes, retaining thus a considerable margin of safety as indicated by Fig. 2.

For extreme emergency, an exposure of 3 minutes undoubtedly does provide a margin of safety far beyond any emergency performance practicable in boiling, actually three times the minimum exposure of one minute at 250° F.

To indicate graphically the degree of safety provided in emergency sterilization, reference is made to Fig. 2 which shows the development of (instrument temperature) in routine performance in a sterilizer heated by direct steam and operated at maximum temperature of 254° F. In one minute, temperature has advanced to 250° F., rapidly building up to 254° F. The heavy line indicates the minimum requirement of one minute at 250° F. The additional four minutes, with some additional heat, provides that element of time in which moisture can soften and permeate crusts.

Comparison of Results Operating at Normal Pressure (17 Pounds) Versus High Pressure (27 Pounds)

In the effort to further conserve time, use of higher-than-normal pressure and temperature has been advocated and some institutions are now sterilizing instruments at 270° F. (27 pounds pressure). To present correct analysis of relative performances, a

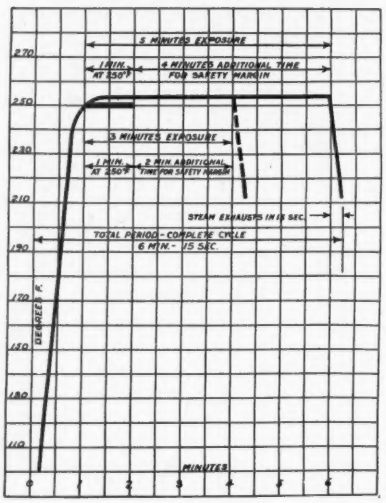

5 MINUTES EXPOSURE
1 MIN. AT 250°F
4 MINUTES ADDITIONAL TIME FOR SAFETY MARGIN
3 MINUTES EXPOSURE
1 MIN. AT 250°F
2 MIN ADDITIONAL TIME FOR SAFETY MARGIN
STEAM EXHAUSTED IN 15 SEC.
TOTAL PERIOD - COMPLETE CYCLE 6 MIN - 15 SEC.
DEGREES F.
MINUTES

Figure No. 2. Temperature chart showing normal (5 minute) emergency performance of direct steam heated pressure instrument sterilizer. Reduction of period of exposure to 3 minutes in acute emergency is indicated by the heavy dotted line.

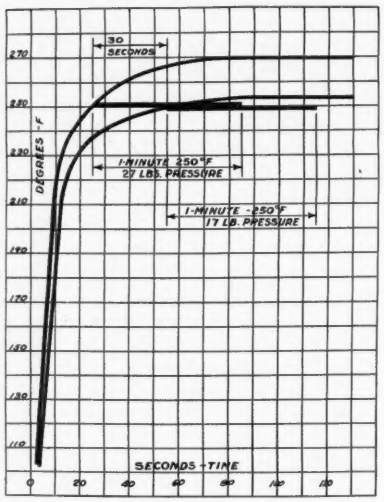


Figure No. 3. Temperature charts showing comparison of performances, heating with direct steam at 27 and 17 pounds pressure respectively. The effective saving in time is less than one minute in bringing the instruments to 250° F.

stock sterilizer, operated by direct steam, was tested at the two ranges (27 and 17 pounds pressure) and the results are clearly shown by Fig. 3.

To analyze these charts, it is noted that the sterilizing range (250° F.) was obtained in 55 and 25 seconds respectively, a gain in time of only 30 seconds, hardy enough to justify much discussion. On the other hand, increasing the temperature to the higher range can save only some part of one minute in sterilizing effect, since direct contact with steam destroys the pathogenic spores in one minute. Again it is pointed out that the hazardous factor in steam sterilization involves the breaking down (softening, dissolving) of crusts. This requires moisture and time rather than added heat. The average good sterilizer, built to generally accepted high standards, is equipped or at least can be equipped with automatic pressure controls which are adjustable for any desired range up to 27 pounds, at the owner's discretion.

But this point should be thoroughly understood by the owner: at the high range of 27 pounds pressure (270° F.) the sterilizer can be used only for instruments or utensils (metalware). Any form of rubber would be badly injured or ruined in one routine performance. Any fabric supplies will react badly to so much heat. At 254° F., on the contrary, the machine is perfectly adapted for sterilization of all surgical supplies and the safety factor cannot logically be questioned in view of the vast experience of many hospitals over a long period of time.

The Mercury Thermometer Is a Reliable Gauge of Applied (Instrument) Temperature

Unlike any other load encountered in surgery, instruments and utensils (metalware) are heated to the sterilizing range actually before the thermometer indicates it. Steam rises always to the upper areas of the chamber, upon admission, and displaces the lower stratas of air as the pressure builds up and as air is driven out, ahead of the steam. Instruments heat with extreme speed and in so doing condense quantities of steam into water, which facilitates sterilization. Since the path of the steam circulating through the chamber is necessarily from top toward the bottom, the thermometer in the path of discharge from the chamber must and does lag behind the internal (instrument) temperature. Carefully conducted potentiometer tests have repeatedly proved this point.

Since the periods of exposure are necessarily somewhat limited, it is vital to safe performance to make use of a permanently reliable thermometer, one not subject to distortion or fatigue in use. For this reason, mercury thermometers are recommended, preferably procured under a guarantee from a reliable manufacturer, that the instrument shall be accurate within one degree. There is no difficulty involved in securing such instruments.

Pressure Steam Is Distinctly Less Damaging to Instruments Than Boiling Water

Instruments which have been sterilized by boiling are always corroded to some extent with impurities deposited from the raw water, lime or scale in crevices and joints, which the most careful polishing fails to remove. This

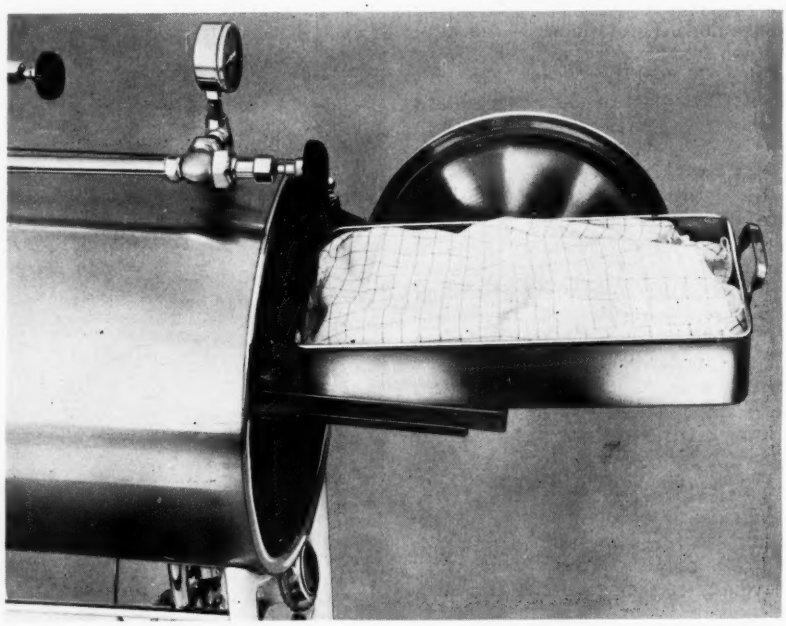


Figure No. 4. A towel or old dressing cover over the instruments affords protection to the load between the sterilizer and the operating rooms, has no appreciable retarding effect in sterilizing. With some soft fabric lining the bottom of the tray, and covering over the tray, instruments can be retained in sterile condition for a considerable period.

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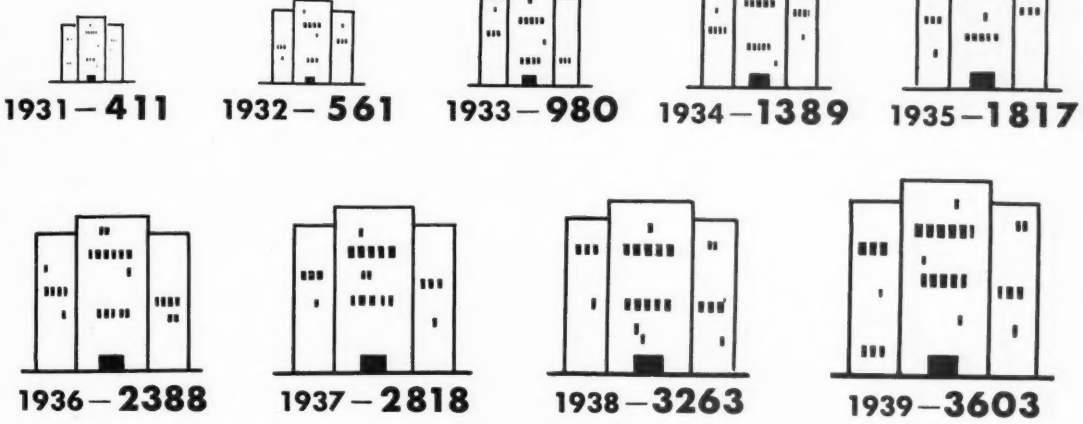

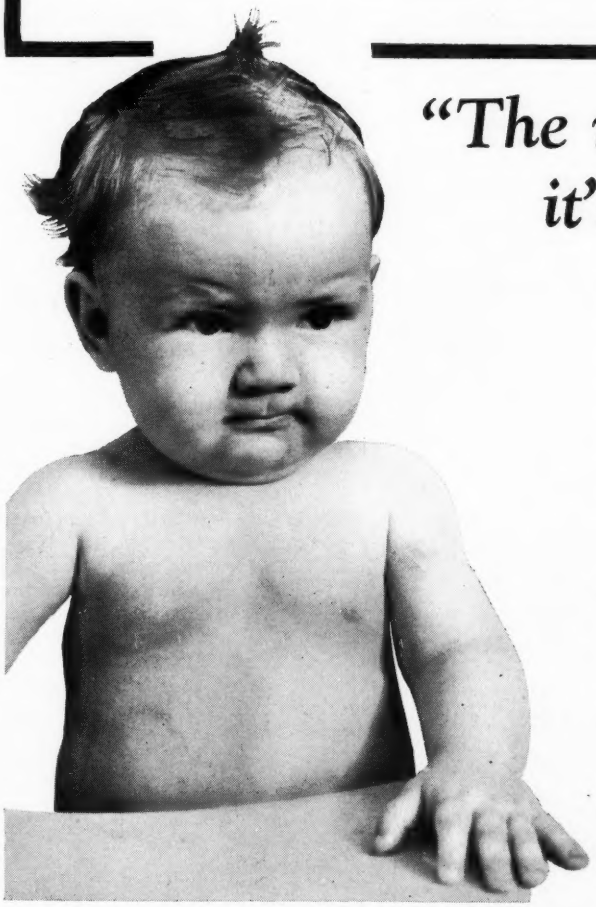

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Hospitals use Mennen Antiseptic Oil for removing the vernix, also for the first antiseptic cleansing, and for the daily antiseptic anointings. Mothers should continue these daily antiseptic anointings at home — AT LEAST THRU THE FIRST YEAR. This reduces the bacterial count on the baby's skin and decreases the opportunity for skin infections, pustular rashes and "heat rash".

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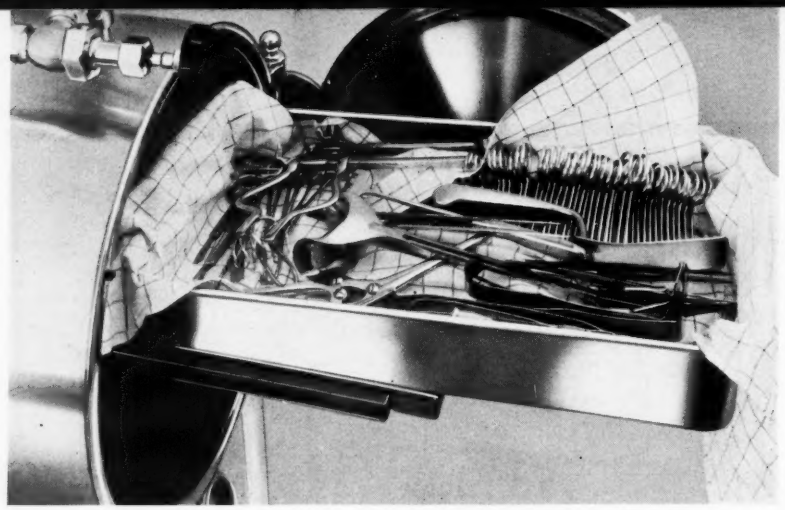
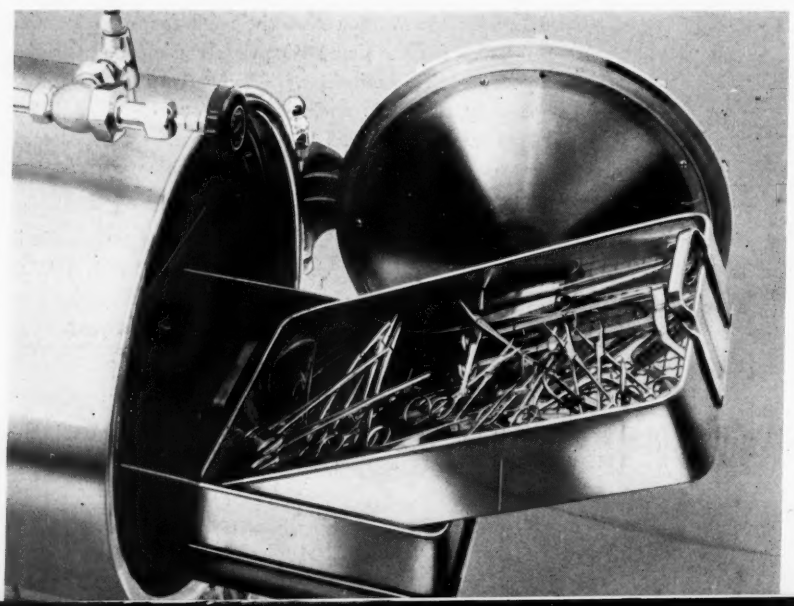


Figure No. 5 (above) illustrates the utility value of the filing cabinet type instrument tray carrier. Each tray support slides freely half its length from the chamber, permits handling the tray without danger of burning arms or contaminating the instruments in grasping the tray at both ends.

Figure No. 6 (above) illustrates the special equipment for washing and sterilizing septic instruments. Figure No. 7 (below). After washing and sterilizing instruments, the tray support is withdrawn half its length from the chamber, which permits the inner tray to be lifted from the water in the outer tray, thus draining the instruments as shown.



is highly objectionable for all delicate instruments, and all too frequently such instruments are sterilized by some chemical process which is never altogether satisfactory and is sometimes definitely unsafe.

When instruments which have been previously sterilized by boiling are first subjected to steam sterilization, there will be noted many brown tarnish spots erroneously assumed to be rust. This is not rust but the result of break-down of scale formation under moist heat which will gradually disappear with repeated sterilization under pressure steam, provided the instruments are not boiled again. Thereafter, with no special precaution, just routine performance, the instruments will remain bright and clean. This is true of plated as well as stainless instruments. Scalpels and other delicate instruments can be sterilized in the pressure sterilizer with distinctly less damage than is possible with any other positive method.

Washing and Sterilization of Septic Instruments

Routine performance for handling septic instruments involves, usually, a long period of soaking in some strong chemical to at least reduce the danger of handling, after which they are washed by hand, which always involves some element of danger, and then sterilized. There is a simple method by which such instruments can be washed and sterilized in the pressure sterilizer, altogether eliminating the danger of handling them, and also eliminating nearly all the labor involved in washing.

An ordinary porcelain basin, suitable in size to hold the instruments and to fit inside the sterilizer, can be used. The instruments are collected in this basin, direct from the operating room. All jointed instruments are opened to facilitate cleansing, but no other handling or treatment is required. The instruments are covered with hot water containing (in solution) one tablespoonful of tri-sodium-phosphate. The tray of instruments is then subjected to routine sterilization for 15 minutes which renders them sterile. Blood and pus will be dissipated, leaving the instruments essentially clean, requiring no further handling except to wipe them off, preferably while still wet, to remove any small shreds of tissue which may adhere to joints. This process effectively cleanses and sterilizes and removes all danger encountered in hand washing.

The machine illustrated herein (Figure 1) contains a special filing

cabinet type instrument tray rack with facilities for holding two trays. One unperforated monel metal tray is provided for this washing process, containing an inner tray, also of monel, having a wire mesh bottom which greatly facilitates the use of the machine for this purpose. After sterilization, the inner tray can be lifted from the unperforated tray, thus draining the water from the instruments, leaving them available for immediate handling, for wiping off. Such instruments, of course, since they must be handled in wiping them off, require re-sterilization before use.

Changes in Nursing Personnel

MAE RUTH SMITH has been named directress of the Clearfield Memorial Hospital School of Nursing, Clearfield, Pa., succeeding ELIZABETH MITCHELL, who has served in this capacity since the resignation of MARY A. ROTHROCK some time ago. Miss Smith has had a wide experience in hospital and nurses training school work and was formerly a member of the faculty of the Frances Payne Bolton School of Nursing of Western Reserve University.

ADA EVANS has been appointed directress of nurses at Coaldale State Hospital, Coaldale, Pa., succeeding CATHERINE O'DONNELL.

BERNICE RIECKMAN has been named superintendent of nurses at the City Hospital, Louisville, Ky., succeeding CARRIE WOOD, who resigned last Spring because of ill health. Miss Rieckman was formerly assistant superintendent of nurses at the Milwaukee County Hospital and was superintendent of nurses and instructor at Queen's Hospital, Honolulu.

It was erroneously reported in the June issue of HOSPITAL MANAGEMENT that GLADYS M. BAYNE has been named assistant director of nursing at Grasslands Hospital, Valhalla, N. Y. Miss Bayne has been named administrative assistant to the medical director at Grasslands.

Notice of the new appointment of KATHLEEN F. YOUNG was misstated in the April issue of HOSPITAL MANAGEMENT. Miss Young, for five and one-half years principal of the school of nursing and director of nursing service at New Rochelle Hospital, New Rochelle, N. Y., is now principal of the Nursing School of Eastern Maine General Hospital, Bangor, Me.

LOUISE SCHROEDER, R.N., for the past eleven years principal of nurses at the Miami Valley Hospital, Dayton, Ohio, has resigned that position.

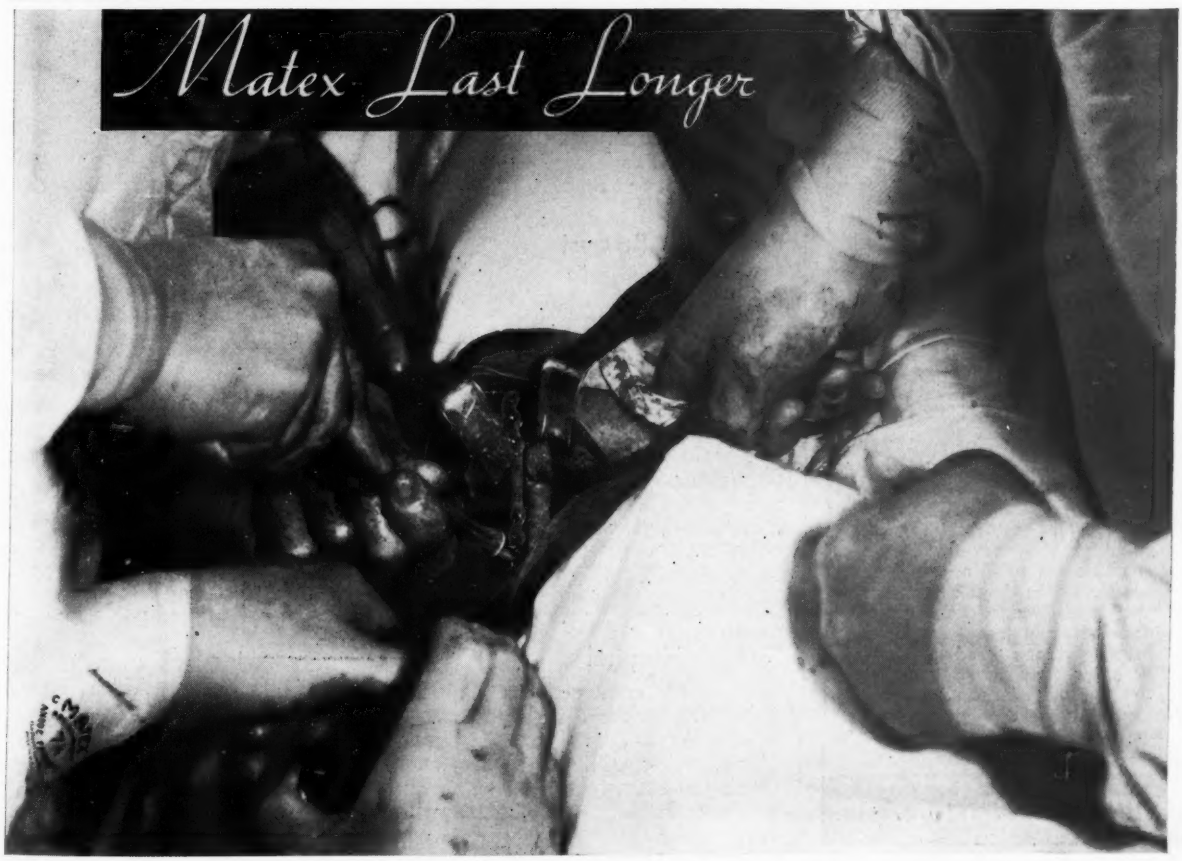
Proper Preventive Measures

(*Continued from page* 16)

It should be remarked that although ether mixtures have not been studied as thoroughly as have cyclopropane mixtures, it is known that in general the same data apply. Indeed, ether oxygen mixtures are just as explosive and ignite at even lower temperatures although this latter may be unimportant as compared with flame propagation lag differences.

The practical application of this flame-quenching property of helium with anesthesia gases is now under investigation in Pittsburgh and in Boston. If anesthesia is carried on at atmospheric pressure it means restricting the oxygen concentration more than has been done in the past, it requires especial care during induction and on recovery in order that the particularly inflammable area "E" of the figure of low cyclopropane concentration be safely passed, and it above all requires the working out of a technique which can give some reasonable surety of realizing the theoretically desired mixtures. Dr. Thomas and his group in Pittsburgh are particularly well equipped for this problem and are actively engaged in its study.

The application of the above de-



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scribed static control measures should go far toward eliminating explosions in anesthesia apparatus. When supplemented with an understanding use of flame-quenching methods (helium) the hazard will be much less than anything experienced in the past.

In conclusion, the all important question of fire and explosions due to defective wiring of house circuits and apparatus should be clarified. Mercury wall switches should replace ordinary snap switches, and three-wire polarized and locking outlets should be everywhere installed, the third wire being grounded, and all apparatus wired so as to ground the metal casing or shield to this pole, thus preventing accidental grounding of the power circuit to other objects, including the grounded floor. The fixtures herein mentioned are everywhere regularly stocked and apparatus can be so modernized by any competent electrician.

A.C.S. Issues New Surgery Manual

In conformity with the purpose for which it was organized, that of raising the standards of surgery, the American College of Surgeons has issued a Manual of Graduate Training in Surgery. This is the result of ten years' study of educational programs.

The new publication, which follows the "Fundamental Principles and Criteria," will in the future be applied in determining eligibility for the list of hospitals approved for graduate training which appears in the annual approval issue of the A.C.S. bulletin.

$2,000,000 Bequest For New Hospital

A bequest of $2,000,000 to Northwestern University, Evanston, Ill., was made public last month when the will of Mrs. Margaret Gray Morton was filed. The money is to be used for the erection and endowment of the Morton Memorial Hospital on the Chicago campus of the University and for medical research. Edward Sanatorium, Naperville, Ill., also received a gift of $50,000 through Mrs. Morton's will.

$300,000 Wing for Swedish Hospital

Plans for construction of a new $300,000 wing for Swedish Hospital, Seattle, Wash., were completed recently. Air-conditioned surgery and obstetrical rooms and a nursery with accommodations for 65 infants will be provided.

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Food and Dietary Service

EDITORIAL DIRECTOR: Mary Edna Golder, Dietitian, St. Anne's Hospital, Chicago.

The Education of the Diabetic Patient

By ANNE WHITCOMB SPRAGUE
and
MARY AGNES FOLEY
Section on Metabolic Therapy, The Mayo Clinic, Rochester, Minn.

Although many articles appear yearly on the subject of diabetes and its management, few are concerned primarily with the individual diabetic patient. Unfortunately, some individuals who need competent medical care and guidance are occasionally misled by the fact that there are today many patients suffering from mild degrees of diabetes who nevertheless seem to maintain themselves well in spite of the haphazard care they receive or give themselves.

It is our opportunity herein to attempt to dispel, in some small measure, the misinformation extant concerning the subject, and to substitute therefore some practical suggestions and methods of instruction based on our own experience and also that of leaders in the field.

If an individual has a thorough understanding of the problems entailed by diabetes as related to himself, he can learn to live a happy, normal, and useful life. It is even more important that children receive an adequate education in the problems of diabetes since their life expectancy is longer than that of adult patients. The lessons of adjustment which must be taught and the careful training in proper living which these children receive at early ages can be made to produce a more stabilized, intelligent citizen of future years.

Definite Need for Instruction

That a definite need for instruction is becoming increasingly necessary has been clearly demonstrated in statistics published by the George F. Baker Clinic in Boston and by the Metropolitan Life Insurance Company of New York. There has been an increase in the crude death rate of diabetes in every state of the union. Of course, it has been pointed out that there is an increasing proportion of older persons, particularly women, in the general population. When this factor is adjusted, the death rates are seen to be stable from 1932 to 1937, inclusive. The figures also show that the death rate of diabetes from 1935 to 1937, inclusive, has declined in most age groups. The rate, however, continues to increase for male persons more than 65 years of age and among female persons older than 55 years. Does this not show the need for further and more extensive guidance among older individuals, so that the mortality caused by diabetes may be reduced, no matter what the age of the patient?

As Joslin said, any method of treating diabetes in the hands of a good clinician will bring results. The same applies to teaching. For various reasons we have found the following methods best suited to our organization.

Methods Used at Mayo Clinic

When a patient has been found by a clinic physician to have diabetes, he is referred directly to the hospital or the metabolic out-patient clinic, depending on what treatment is needed. The same routine diabetic instruction is carried out for both hospital and ambulatory patients. The personnel of the out-patient clinic consists of one staff physician, two medical fellows (physicians), a dietitian, and one student dietitian.

The individual entering the metabolic clinic is first taught the technique of urinalysis and is instructed to keep a record sheet of urine tests for the guidance of the physician who is treating him. The number of daily tests varies from two to four, depending on the severity of the diabetes. If the patient has been using insulin or if he starts the use of insulin, an accurate record of dosage is also kept on the same sheet. This simple measure tends to stimulate the patient's interest in his progress and aids also in developing in him a sense of personal pride and self-satisfaction that is derived from the achievement of the best possible results.

Five Lectures Given Weekly

Actual instruction of the patient is accomplished by several different means. Lectures are given five days a week in the diabetic classroom. These lectures are primarily offered to instill adequate and authentic information into the patient's mind. The general subjects discussed each week are usually the same.

The first lecture includes a discussion of the nature of diabetes, factors concerned in its onset and the effects it produces, as well as the methods and expected results of treatment. An explanation of the modern diet and the discovery, proper use and care of insulin also are discussed as two of the main methods of treating diabetes.

The second lecture is devoted entirely to the use of protamine-zinc insulin and regular, or crystalline, insulin. At this time the patient learns to adjust his own insulin dosage in accordance with the results of his urinalysis, presuming that the diet remains a rather constant factor. He is also instructed as to the causes of reactions to insulin and the symptoms they cause and treatment of them.

The third lecture teaches the patient a simple routine to be followed in any emergency, such as illness, cold or infection. He is also told about diabetic coma and instructed in a program of emergency treatment to be used when acidosis, but not actual diabetic coma, has developed.

The fourth lecture deals entirely

with methods for the proper care of the feet. As a conclusion, the fifth lecture serves as a review and stresses the most outstanding and important factors in the treatment of diabetes covered during the four preceding lectures. The patient is encouraged to ask questions during the lectures, and many new and interesting problems often arise that help to pave the way toward a clearer understanding of diabetes.

Motion Pictures Used

As another means of instruction a motion picture on the subject of diabetes has been prepared at The Mayo Clinic and is shown at the end of the weekly lecture period. Although the motion picture itself is complete in all details, it will never supplant the lectures. Rather, it provides the patient with a final glimpse of the problem of diabetes as a whole.

Well-maintained bulletin boards in the classroom are likewise an additional incentive for the patient. In addition to containing methods of treatment for diabetes, these boards list commercial articles related to the subject and also offer a display of new and interesting dietary knowledge. The patient is encouraged to spend leisure moments perusing the material, to which he has access at any time. As another means of education, he is told of several authoritative references pertaining to the subject of diabetes and is shown by scrap books the dangers frequently caused by quack remedies and treatments.

Actual Instruction by Physician

Actual instruction in the technique of the injection of insulin is handled by the medical fellow, who is a physician. It has been found wise to teach this routine to patients who do not actually need insulin at the moment as well as to individuals actually requiring insulin. The patient is given several lessons and as soon as he has gained self-confidence, he injects insulin under the watchful eye of his instructor. After that period he is allowed to care for his own needs without guidance. Although he should, at this stage, understand the adjustment in dosage and the technique of administration of insulin, he is seen several times a week in clinical consultation by the physician in charge. Such a consultation is absolutely necessary to insure the best possible regulation of the patient's condition before he is dismissed and allowed to assume his own responsibilities.

During the period of diabetic instruction the patient takes his meals at a restaurant specializing in the preparation of therapeutic diets. The diet which he receives has been ordered by his consulting physician and is suited to his own individual condition. Special consideration is given not only to the patient's occupation and environment at home but also to his personal habits concerning intake of food. Naturally, much better results can be anticipated in association with the patient who is contented with his diet than from one who is merely handed a list of foods to be used as a tentative guide. The patient quickly learns to observe the proportions and types of food which constitute his diet and to realize the relationship between diet, urinalyses and insulin needs.

Academic Instruction by Dietitian

Academic instruction of the patient in regard to diet is given in a half hour period of consultation daily with the dietitian. He is given a book containing information he must know and innumerable questions to be filled out concerning the subjects discussed. Using this type of question-and-answer material, it is quite easy to ascertain which points need stressing and clarifying.

As soon as the fundamental groundwork is covered, the patient is taught how to make out his own menus. Here again may be pointed out the value of individualizing the instruction. The diabetic patient requires more fat and less of the cheaper carbohydrate foods than does the average person. Therefore, his diet is more expensive than the normal diet. This

WHAT WE ARE DOING!

Few of us have time to "go in" extensively for dining room decorations for the holidays. However, one ambitious southern dietitian—Mamie Harris of Hermann Hospital, Houston, Tex.—puts most of us to shame. Here is the set-up she found time to plan at Easter-time. We show this picture now as ideas for other festive occasions might be prompted by this suggestion.

Her nurses and supervisors must have enjoyed the "Easter Bunny" surprise. The papier mache rabbits were purchased at the "5 and 10," we are told, and crepe paper hats had oatmeal box foundations. The carpenter made the hat-racks. Simple, inexpensive sweet peas offered their share of color and fragrance.

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fact should be kept constantly in mind and every effort should be exerted to adjust the diet to the individual's pocketbook. It is also wise to permit and to urge the patient to tell about his habits in the intake of food and his experiences with diet. In this way a comprehensive idea of his attitude toward diet in general and food in particular may be obtained.

Above all, the fact must be kept in mind that the time spent in reassuring the patient, dispelling his worries, and aiding him in making an intelligent adjustment to his new situation is fully as important as the actual facts that he must learn. It is difficult to teach a doubting and uninterested patient; it is much easier to instruct an interested patient in a receptive mood.

Whenever, possible, it is wise to instruct a second member in the diabetic patient's family. This procedure gives assurance of complete understanding in the home life of the patient and is at the same time a protection for him. If there is opportunity to instruct only the one individual, he should be consistently urged to impart the information he has learned to some other member of his family on his return home.

The instruction of diabetic children is carried out in much the same way as is instruction of adult persons. Usually, a greater amount of time should be spent in assuring the adjustment of the child to the disease which he must care for during his lifetime. The parents are urged to shift the responsibility of diabetic management to the child as soon as possible. In this way he quickly learns to take pride in his own progress, and there is, therefore, less danger of his using diabetes as a crutch or excuse for constant sympathy and attention.

Instruction of Diabetic Children

The parents should be repeatedly cautioned to have the child examined yearly and to have a new diet provided which will meet the changing caloric requirement during the period of growth, thus giving the child an opportunity to grow and develop as do normal children. At the clinic it has been customary for us to give several parties each year for our diabetic children. These have been highly successful in helping us secure the constant interest of the child and his parents. We also hold a short period of summer camping for the children.

The instruction as outlined herein cannot be completely or adequately given in less time than one full week. In some cases it requires from ten days to two weeks, depending on the amount of difficulty encountered in regulating the diabetes, and the power of the individual to grasp the necessary information. Although at first consideration this instruction seems to constitute an enormous amount of new material to be absorbed rapidly, it can be given satisfactorily if sufficient patience and time are employed in laying a good foundation.

From that point onward, the individual, fully equipped with all his own records, can further study the subject and intelligently ascertain the characteristics of his own particular condition. Furthermore, he is advised to undergo medical examinations not less frequently than once each year, not only because early detection of complications may be made thereby, but also because such examinations help strengthen morale and stimulate interest in his achieving satisfactory progress. He is encouraged to consult his physician by letter concerning any problems which he may have and in this way he may be advised as to how to maintain his knowledge up to date and to take advantage of any new, authorized methods of treatment for diabetes that might prove satisfactory in the management of his own particular condition.

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Total Solids	76.0	10.3
Ash	2.7	0.4
Protein	3.5	0.5
Reducing Sugars	26.0	3.5
Sucrose	31.3	4.3
Carbohydrate (by difference)	63.3	8.6
Citric acid	6.5	0.85
Calories	2.67 per gm. 76. per oz.	.03 per gm. 10. per oz.

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Chatterbox Topics

Those wishing to refresh their memories as to the "how's and why's" of lard will be interested in reading the article, "Lard Goes On The Bargain-Counter," in the May issue of the government's bulletin, Consumers' Guide.

•

Stainless steel enthusiasts will be interested in sending in inquiries pertaining to a new model of an automatic dish-washing machine manufactured by a well-known concern. It's a honey and you will be conniving as to the ways and means of obtaining this latest production.

•

While visiting in St. Louis this past month I found that the dietary employees of the DePaul Hospital and members of the nursing staff were the only ones served meals as a part of their maintenance. Maintenance employees are served their meals in a small section partitioned off of the Coffee Shop serving kitchen. Here they may purchase sandwiches and the usual foods served in any coffee-nook at a nominal price.

This same hospital has three rooms for the service of food to the public. First, one is shown the Rainbow Room with its lattice entrance. The "home-constructed" booths are neat. The murals on the walls are interesting because one of the "higher" personnel did this bit for the house. Simple menus are served here on a better grade of dishes and in a very attractive manner. The Cocktail Room is a small nook where snacks are served. The Coffee Shop has its soda-fountain and gift counter. It is here that nurses as well as visitors may have their mid-meal snacks of "cokes or what-have-you." An adjacent small serving kitchen serves these three projects so that the hospital kitchen is not over-taxed.

•

A visit to Jewish Hospital, St. Louis, proved that Miss Florence King, the administrator with a keen color complex, is also stainless steel conscious! She is gradually purchasing stainless steel equipment, but of course these adjustments must be made within the budget allowance.

•

Do your fresh fruits discolor? A new tablet dissolved in one quart of water prevents the discoloration of apples, peaches, and bananas.

•

Communities are becoming more and more acquainted with the hospital dietary staff. Silver Cross Hospital, Joliet, Ill., devotes its June issue to the publicity of its dietary organization. The main topics are: "Diet is Essential Factor in Hospital Care"; "Variety of Diets Served"; "New Equipment"; and "How Illness Affects Taste."

•

Like many other hospitals, New Rochelle Hospital, New Rochelle, N. Y., now boasts of a Hospitality Room. Each day one "Hot Special of the Day" lends variety to the usual fountain menu.

•

Have you seen the ultra-violet ray glass-washing machine? Glasses are subjected to ray treatment for two minutes, results equalling germ-free drinking glasses!

New Service Plan Formed

Formation of the Northwestern County Hospital Service Association, composed of eight hospitals in northwestern Ohio towns, was announced last month by Paul J. Lynch, Toledo, executive director. The plan covers hospitals in Lima, Findlay, Kenton, Sidney, Celina and Bluffton.

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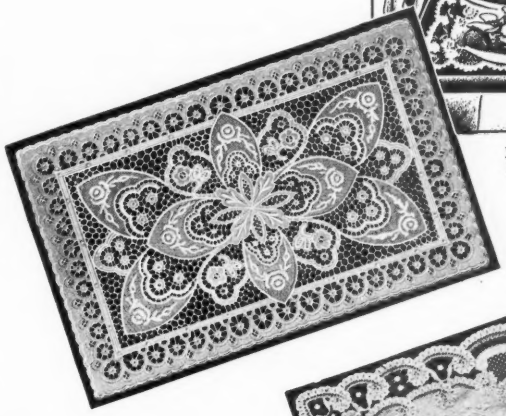

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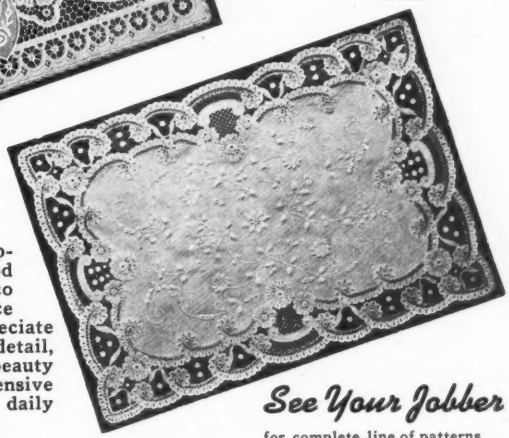

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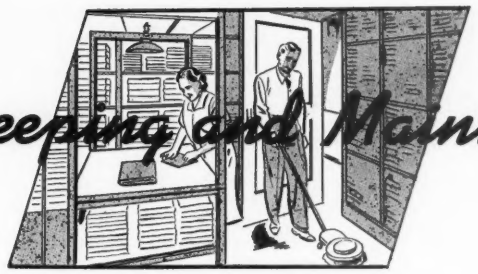
MILWAUKEE LACE PAPER COMPANY
1304 East Meinecke Avenue Milwaukee, Wisconsin

GENERAL MENUS FOR AUGUST

Suitable for Staff, Personnel and Patients Not Requiring Special Diets

DAY	Breakfast	Dinner	Luncheon
1.	Sliced Peaches; Cold Cereal; Poached Eggs; Muffins	Cube Steak; Shoestring Potatoes; Green Beans; Totmato-Cottage Cheese Salad; Raspberry Shortcake	Hamburgers on buns; Combination Melon Salad; Malted Milk; Mocha Cup Cakes
2.	Orange Juice; Hot Cereal; Scrambled Eggs; Toast	Fish Fillets; Scalloped Potatoes; Peas; Celery Curls and Beet Pickles; Chopped Jello Topped with Banana, Cream and Nuts	Cream Mushroom Soup; Tomatoes Filled with Egg Salad; Potato Chips; Assorted Fresh Fruit; Cookies
3.	Prunes; Hot Cereal; Bacon; Cinnamon Toast	Roast Beef; Noodles; Broccoli; Mixed Vegetable Salad; Chocolate Cake a la Mode	Assorted Cold Meats; Potato Salad; Slaw; Fresh Plums and Cookies
4.	Honey Balls; Cold Cereal; Bacon; Coffeecake	Fried Chicken; Parslied Potatoes; Whole Kernel Corn; Stuffed Celery and Relishes; Pineapple and Blackberries; Wafers	Vegetable Soup; Ham Salad Sandwiches; Sliced Tomatoes and Pickles; Banana Ice Cream; Cake
5.	Tomato Juice; Hot Cereal; Sausages; Muffins	Lamb Chops; Potatoes au Gratin; Asparagus; Spiced Apricots; Ice Box Graham Cracker Cake	Veal Steak; Spanish Rice; Fresh Vegetable Salad; Peach Tarts
6.	Berries; Cold Cereal; Bacon; Toast	Baked Ham; Mashed Potatoes; Canned Tomatoes; Lettuce and Dressing; Fresh Fruit Cup; Wafers	Cold Meats; Macaroni and Cheese; Pear and Apricot Salad; Ice Cream; Cake
7.	Sliced Bananas; Hot Cereal; 3-Minute Egg; Rolls	Chicken Salad; Biscuits; Peas and Carrots; Relishes; Gingerbread and Sherbet	Cream of Tomato Soup; Steaks; French Fried Potaoes; Melon Rings Filled with Canned Fruit; Cookies
8.	Pineapple Juice; Cold Cereal; Bacon; Toast	Smoked Pork Butts; Parslied Potatoes; Green Beans; Beet and Egg Salad; Blueberry Tarts	Cold Meats; Hot Potato Salad; Shredded Fresh Combination Vegetable Salad; Watermelon
9.	Applesauce; Hot Cereal; Poached Eggs; Toast	Baked Fish with Spanish Sauce; Mashed Potatoes; Cauliflower; Lettuce and 1,000 Island Dressing; Fresh Fruit Tapioca	Tuna Salad Sandwiches; Potato Chips; Relishes; Mixed Fruit Plate; Cup Cakes
10.	Cantaloupe; Cold Cereal; Sausages; Toast	Roast Lamb; Scalloped Potatoes; Asparagus; Tomato Salad; Cherry Tarts	Tenderloin in Cream Gravy; Baked Potatoes; Relishes; Sponge Cake a la Mode
11.	Orange Juice; Hot Cereal; Bacon; Coffeecake	Roast Chicken; Mashed Potatoes; Brussel Sprouts; Apricot Salad; Berry Shortcake	Cold Baked Ham; Potato Salad; Celery and Spiced Peaches; Ice Cream; Ice Box Cookies
12.	Grapefruit Sections; Hot Cereal; 3-Minute Egg; Muffins	Steaks; Potatoes au Gratin; Canned Tomatoes; Lettuce with Roquefort Dressing; Fresh Fruit Tapioca	Chicken Soup; Rice Croquettes and Sauce; Green Beans; Fresh Peaches and Angel Food Cake
13.	Cherry Juice; Cold Cereal; Bacon; Toast	Veal Chops; Baked Potatoes; Creamed Carrots; Orange Salad; Layer Cake with Lemon Filling	Bean Soup; Cold Meats; Aspic Vegetable Salad; Bread and Butter Sandwiches; Pineapple; Cookies
14.	Berries; Cold Cereal; 3-Minute Egg; Muffins	Fried Chicken; Mashed Potatoes; Asparagus; Beet Pickle and Cream Cheese Salad; Cottage Pudding and Fruit Sauce	Ham a la King on Biscuits; Waldorf Salad; Butterscotch Sundae; Cookies
15.	Orange Juice; Cold Cereal; Bacon; Toast	Roast Beef; Browned Potatoes; Beets in Sour Sauce; Pineapple Salad; Floating Island	Cold Roast Pork; Potato Salad; Peas; Sliced Tomatoes; Fresh Apricots; Cookies
16.	Honey Dew Melon; Hot Cereal; Scrambled Eggs; Rolls	Broiled Fish; Mashed Potatoes; Broccoli; Lettuce and 1,000 Island Dressing; Chocolate Pudding and Coconut Topping	Salmon Patties; Potato Chips; Vegetable Salad; Oriental Tarts
17.	Apricots; Hot Cereal; Sausages; Muffins	Roast Lamb; Creamed Potatoes; Whole Kernel Corn; Princess Salad; Fruit Gelatin; Wafers	Bar-B-Q-Beef Sandwiches; Slaw; Raspberry Sundae; Cup Cakes
18.	Tomato Juice; Cold Cereal; Bacon; Coffeecake	Pan Fried Chicken; Mashed Potatoes; Asparagus; Lettuce and French Dressing; Fruit Souffle and Custard Sauce	Ham Salad Sandwiches; Tomato Salad; Frosted Milk; Cup Cakes
19.	Prunes; Hot Cereal; Poached Egg; Toast	Steak; French Fried Potatoes; Peas; Relish Plate; Cantaloupe with Sherbet	Meat Loaf; Spaghetti; Pear-Cream Cheese Salad; Fruitade; Cookies
20.	Orange Juice; Hot Cereal; Bacon; Rolls	Veal Cutlets; Potatoes au Gratin; Cauliflower; Gelatin Vegetable Salad; Cream Puffs a la Mode	Cold Tongue; Scalloped Potatoes; Tomato and Cottage Cheese Salad; Apricots; Jelly Roll
21.	Crushed Pineapple and Sliced Banana; Cold Cereal; 3-Minute Egg; Toast	Roast Chicken; Mashed Potatoes; String Beans; Cucumber-Radish Salad; Berries; Wafers	Cold Meats; Macaroni and Cheese; Frozen Vegetable Salad; Cherry Tarts
22.	Applesauce; Hot Cereal; Scrambled Egg; Toast	Baked Ham; Parslied Potatoes; Corn on Cob; Prune-Pineapple Salad; Chocolate Marshmallow Roll	Creamed Chicken Hash; Green Beans; Fresh Fruit Salad; Baked Custard
23.	Peaches; Cold Cereal; French Toast	Salmon Loaf; French Fried Potatoes; Peas; Lettuce and Russian Dressing; Melon Cubes	Cream of Mushroom Soup; Cheese Sandwiches; Fruit Gelatin Salad; Ice Cream; Cake
24.	Orange Juice; Hot Cereal; Bacon; Toast	Liver; Scalloped Potatoes; Tomatoes; Grapefruit Salad; Cheesecake	Corned Beef; Hashed Browned Potatoes; Asparagus Salad; Peach Shortcake
25.	Cantaloupe; Hot Cereal; Bacon; Coffeecake	Roast Chicken; Mashed Potatoes; Brussel Sprouts; Poinsetta Salad; Chocolate Sundae	Jellied Veal Loaf; Potato Chips; Fresh Fruit Salad; Layer Cake
26.	Berries; Cold Cereal; Bacon; Muffins	Roast Beef; Oven Browned Potatoes; Spinach; Melon Salad; Raspberry Tapioca	Baked Ham; Scalloped Corn; Spiced Fruit; Banana Cream Cake
27.	Grape Juice; Hot Cereal; Bacon; Toast	Tenderloins; Parslied Potatoes; Carrots; Pineapple Melon Salad; Chocolate Layer Cake	Veal Patties; French Fried Potatoes; Peas; Melon Rings with Fruit Centers
28.	Grapefruit Sections; Hot Cereal; Poached Eggs; Toast	Chicken Pie; Peas and Carrots; Lettuce and Dressing; Date Pudding	Cold Meats; Potato Salad; Sliced Tomatoes; Raspberry Shortcake
29.	Tomato Juice; Cold Cereal; 3-Minute Egg; Rolls	Roast Lamb; Scalloped Potatoes; Squash; Relish Plate; Ice Cream Roll	Deviled Ham Sandwiches; Peas; Fresh Peaches; Coconut Cake
30.	Honey Dew Melon; Cold Cereal; Fried Mush	Salmon a la King; Baked Potatoes; Lima Beans; Vegetable Salad; Floating Peach	Cream of Tomato Soup; Shrimp Salad; Potato Chips; Relishes; Fresh Fruit Plate; Cookies
31.	Orange Juice; Hot Cereal; Bacon; Muffins	Salisbury Steak; Parslied Potatoes; Green Beans; Tomato Salad; Parfait	Bean Soup; Roast Beef Sandwiches; Asparagus; Watermelon



The Right Type of Mattress Important for Patient's Comfort

By ALTA LaBELLE
Housekeeping Director, Michael Reese Hospital, Chicago

There is no one who does not recognize the importance of the right kind of mattress, for it can mean all the difference in the world between a sleepless night and the result of a relaxed sound sleep.

To get a real appreciation of the mattress we have today, we must revert to the very early days and review its history and evolution. The Greeks and Romans slept on beds of wooden frames with bands of hide laid across upon which skins were placed. The ancient Germans slept on the floor on beds of leaves covered with skins. In the early Middle Ages, carpets were laid on the floor or on a bench against the wall; mattresses stuffed with feathers, wool or hair were placed upon them, and skins were used for covering. Fifteenth Century beds became large and mattresses were filled with pea-shucks or straw, wool or horse-hair.

In the Near East, beds were made up by simply piling a number of rugs on the floor. Persians reclined upon these piles in some soft garment and made no use of beds. In India, the inhabitants lived in the open to such an extent that beds were not needed. In China, mats on the floor were used to sleep on, and in the morning the "beds" were put away in a closet and the room used for other purposes.

So much for the remote past.

In the days not so far gone—during my mother's childhood—mattresses were made of nice, clean cornhusks. Only the inside white husks were used; these were first dried in the sun and then stuffed into a casing about six inches thick. These mattresses had to be refilled every year or two. My mother also remembers making mattresses of rye straw. Her next memory is of the cotton mattress in layers. Then the excelsior mattress came into being. This was made of wood shavings, packed hard into a tick, and I mean what I say when I say hard! Feather beds were also common about this time. People sometimes slept on and under many of these on one bed.

Fancy having any of these types today on hospital beds!

Time and progress have brought us new types and standards. Science and skill have produced comfort and uniformity. Now our mattress story is, indeed, different! There are many types to choose from and there are special types for every kind of service.

Today there are 6,226 registered hospitals in the United States. According to the A. M. A. hospital census, these hospitals contain 1,195,026 beds and 58,764 bassinets. Their figures also show that last year 9,879,244 patients were admitted and 1,099,713 babies were born in these hospitals.

The mattresses for nearly eleven million patients are, indeed, a serious responsibility for the housekeepers in our hospitals to consider—and it keeps them very mattress conscious. I, who am responsible for the patient comfort in only one of the 6,226 hospitals, keenly feel my responsibility, and make every effort to forestall whatever mattress discomfort I can.

The Housekeeping and Maintenance Department is conducted with the assistance of Mrs. Mildred G. Page, Executive Housekeeper of Henrotin Hospital, Chicago, and the Institutional Laundry Managers' Association of Illinois.

At Michael Reese, we probably have every kind of mattress one could think of, as our service covers nearly every classification of patient care. Mattresses fall into seven distinct classifications:

1. Hair
2. Felt (or cotton)
3. Hair and felt combination
4. Two-piece type units
5. Innerspring
6. Rubber (air)
7. Rubber (latex)

and I shall give my opinions, based on experience, of the relative value of each type.

The Hair Mattress

The book, "Hospital Economics for Nurses" (1930), states, "Hair is the most commonly used mattress in hospitals, the best being made of manes and tails of horses." In 1940, I hope that this is not true, as I can see no place in the hospital for hair. Its only advantage is that it is hard (for those who wish excessively hard mattresses). It is heavy and hard to handle, it is expensive, and it is filthy. (Have you ever opened a hair mattress, or watched one being cleaned?)

Its resiliency is really of comparatively short duration. While authoritative data states that hair is the most expensive and does last a lifetime, it fails to mention that after a comparatively short time its resiliency is dead. Also, it must have cotton layers between the hair and the ticking, thereby losing its chief function—its use for allergy cases.

The Felt Mattress

The mention of cotton makes one think immediately of soft, fluffy cotton material. The cotton seeds have short fibers; they are run through a machine similar to the gin, and the excess fibers are scraped off by saws. This cotton is called "linters" and

Photograph courtesy U. S. Rubber Co.

Photograph courtesy Goodyear Tire & Rubber Co.

Latex mattresses have been successfully used on labor room beds, in fever therapy cabinets, on operating and delivery tables, examining tables and carts, in bassinets and incubators and in many other places.

from that stage it is processed into what we term "felt."

An all-felt mattress has, I believe, but a single merit, i.e., that it is inexpensive. Certainly it cannot be credited with affording comfort. It calls for very frequent remakes, which constantly lessen its original meager amount of comfort.

Hair and Felt Combination

Hair can hardly be used without top and bottom felt layers, as the hair pricks through the ticking and even works its way through the sheeting, making it most uncomfortable for a patient. Hair mattresses are especially difficult to remake, as the hair gets lumpy, which of course does not add to comfort.

Two-Piece Type Units

The original two-piece unit consisted of ticking-covered springs and an upholstered pad. There are many variations of this original type today.

This type of mattress has been most popular for hospital use for several years. First, it has the advantage of being the easiest of all types to handle, both for the nurses and the housekeeping department. Second, it has the (questionable) advantage of a seemingly lower remake cost, since it has a thin mattress pad. However, if one were to consider how often this thin pad hollows out in the center and how continuously it must be either replaced or remade, it would be termed costly rather than inexpensive, for it cannot stand the abuse of many patients, 24 hours per day, without soon needing to be remade.

Much, too, has been said against this type because of patients either falling out of bed or feeling that they might, as it lacks the reinforced side or rolled edge of the other types of mattresses. To get the best result for patient comfort, when having this mattress pad remade, we have it done with a rolled edge, just as we do the felt type mattress.

The Innerspring Mattress

Again quoting from "Hospital Economics for Nurses": "A new type of mattress that is being used more and more is one built of fine wire coiled springs, each encased in muslin to prevent the springs from slipping and the mattress coils from rubbing against each other . . . "

Much progress has been made in this type, too, since 1930, and this description is now most incomplete. This type of mattress is without any doubt the most popular one in America today. Every hotel or hospital uses it in its varying degrees of luxuriousness. It can be bought for little more than the felt type or it can be very costly, according to the number and type of coils or its covering.

For home use, and I believe also in hotels, a very handsome guarantee of service is given with each mattress. There has been some thought expressed on giving hospitals good service guarantees, but I believe that this is still an idea of the future. As to its superior comfort, it cannot be surpassed.

The psychology of its advertising value, too, must be considered. How often in the hotel rental game have I rented a unit because I could say, "This mattress is a 'Beauty Rest' or a 'Deep Sleep' or whatever it happened to be!" It is not uncommon for a patient to carry this idea into his hospital bed, too, and ask for (or demand) an advertised brand of innerspring mattress which he feels he must have in order to be comfortable. It is common for one to blame aches and pains on a mattress no matter how good it may be, so long as it is not the advertised brand which he has come to believe is the "only" mattress.

Probably the only unkind thing that I can say against the innerspring type mattress is its costly remake. Not that, from a comfort standpoint, it would have to be remade as often as the other types I have mentioned, but in patient care, accidents are frequent and mattresses, too, often may have to be remade because of soiled ticking due to accidents.

The Rubber (Air) Mattress

The air-inflated rubber mattress, which has commonly been used for neuro-surgery and spinal surgery, has proved very unsatisfactory. It was so easily pierced by stray pins that slow leaks were too common to be able to class this type as very practical. About the time that I became aware of the need for this type of rubber mattress, another type of rubber mattress had begun to be used in hospitals. So, now to the seventh and latest type.

The Rubber (Latex) Mattress

This type is so revolutionary, so to speak, that when we sampled it about four years ago, we did so with great temerity. The process was still in its infancy and needed much experimentation.

The common resentment against rubber was that it would be hot. This resentment, undoubtedly, had risen from the non-porous rubber sheet. The reactions of heat, oil and many other elements which were factors in causing prejudices had to be carefully overcome. Its initial cost seemed most excessive. Certainly, if we had

not felt that much was lacking in the types of mattresses we were already using, we would never have had the courage to try this new latex type. However, necessity as ever being the mother of invention, we cautiously ordered one latex mattress.

Uses for Latex Mattresses

First, we tried a 4½-inch regular cellular-molded type for heat therapy. It proved ideal.

Next we tried seven of these mattresses on labor room beds. Our mattress problem in this division has always been difficult because of the extreme abuse the mattresses receive. Should the latex mattresses hold up for five years under such strenuous conditions, I calculate that they will have paid for themselves, despite their high initial cost. They are now three and one-half years old and thus far show no appreciable depreciation. We find them very easy to clean after accidents. Strange as it may seem, after the great ordeal is over, many mothers remember the superior comfort of the latex type mattress on the labor room bed.

Our fever-therapy cabinets are equipped with latex mattresses, and here, too, they afford a maximum amount of comfort.

The split type latex mattress has probably given more long-time comfort than has any other type of mattress. Patients who have laid on the commoner split type mattress with the rubber sheet covering forever complained of excessive perspiration, of discomfort of seams in the rubber sheeting, and of the hollowing out of the center section. The moment they are placed on latex, they cease to complain of mattress discomfort.

On operating tables and delivery tables, the latex mattress cannot be surpassed.

Examining tables and carts cannot want anything better, and I am also hoping to try the latex on wheelchairs.

We have had many requests for latex mattresses and pillows for allergy cases, and in each instance the reaction has been most favorable.

Bassinets and incubators have been equipped with trial latex mattresses. In the incubator, heat and moisture cause the felt type pad to shrink away from the sides, and unless very closely guarded it becomes hazardous. We have been trying latex rubber here for eight months now, and they promise to be fine for this purpose.

Very often on any tufted type of mattress, a patient will complain about tuft discomfort. For this purpose, we have a 1½-inch cellular latex slab, which we place right over the regular mattress.

So much for original types.

New Double-Faced Type

We feel that we have come a long way from the regulation, cellular-molded type, which I first spoke of, in a newer double-faced type. This was developed after a discovery that nurses who were trained to turn mattresses for the sake of comfort lived up too well to their training; they turned the rubber mattress the same as any other and had patients lying on the cored side.

This experience led us to the development of a latex mattress that would forestall any such possibility. We built a double-faced latex mattress, composed of two 3-inch cellular molds, cemented back to back. This gave us a 6-inch latex mattress which could be turned, and thus the psychology of deriving more comfort from a turned mattress need not be destroyed. Until such a time when nursing technique, at least the point of turning mattresses, can be changed, I feel that we cannot use the open cored latex mattress and that it is essential to have a "turnable" mattress for hospital use.

This type may also have the added

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advantage of having both a hard and a soft side, if desired, as one half can be made of heavy density latex and the other side can be of lighter density latex, in which case the patient can have whatever side is best suited to him.

For shampooing, too, this type has a great advantage, as the upper and lower halves can be divided, thus facilitating drying time. Though we have not yet tried this latter type, we have tried many on this double-faced idea, and found them to be nearly perfect.

Other Advantages of Latex

Latex mattresses presuppose no remake worries; small tears can be easily recemented or patched in by a trained houseman. They will, of course, soften some with time, but if their depreciation is charged off at the same rate which would have been spent for periodic remakes for other type mattresses, I think that we will come out even in dollars and cents, and yet be a whole span ahead in the progress of mattress comfort.

For the emaciated or bedridden, the latex mattress should be better than any other, as the rubber's natural elasticity gives it that "rest-on-air" feeling. It yields to the body and supports it very adequately.

For allergy cases, latex should be "tops," as there is no dust or lint.

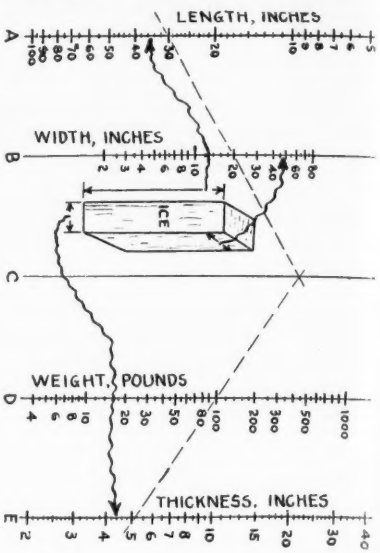
Aseptically, I feel that we can ask for no more. I feel that the latex mattress will not harbor vermin, as its mild antiseptic qualities repel moths, germs and vermin.

Certainly, the latex mattress is much more satisfactory than the air-inflated, old-fashioned rubber type.

The latex mattress will not stretch out of shape and fall over spring sides. It also makes a neater looking kind of bed than any other type.

It can be made in sections and yet kept as a single unit in one slip cover, which makes it very easy to handle. A patient who had the use of a three-section latex mattress in our hospital was so well pleased with it that she had me order one just like it for her own home. The three-section idea appealed to her because it could be disassembled and take up less space in her car when traveling. She claimed that she could never again be comfortable on any other type of mattress.

Weight of Any Block of Ice



This chart gives the weight of all lengths of blocks of ice from 5 inches to 100 inches (Column A), all widths from 2 inches to 80 inches (Column B), and all thicknesses from 2 inches to 40 inches (Column E).

To use the chart simply zigzag across with a ruler as indicated by the dotted lines and the weight of the block of ice is immediately found in Column D.

For example, what is the weight of a block of ice 30 inches long by 20 inches wide by 5.15 inches thick?

Answer: Run a straight line through the 30 on Column A and the 20 on Column B, and locate the intersection on Column C. From that point of intersection run over to 5.15 on Column E, and the intersection with Column D shows that the weight of the block of ice is exactly 100 pounds.

The chart is based on the fact that a cubic foot of ice averages about 56.1 pounds per cubic foot.

HOSPITAL LAUNDRY SERVICE

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A hospital should have and keep enough linen for three complete changes of linen based upon peak occupancy.

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and comfort which clean linen will render.

2. Aid to nursing service. It is very aggravating to any nurse to explain or apologize to her patient or doctor for the lack of sufficient linen.

3. The laundry department. An adequate supply of linen will allow the laundry manager to streamline his production work:

1. By sorting the linen according to the type of article and degree of soil. This reduces washing costs.

2. By keeping a constant flow of work throughout the department it will avoid lost motion between operators and machines. This increases operator and machine efficiency.

Since laundry costs are based upon pounds produced per operator hour, it is an understood fact that maximum efficiency in this department can be gained only by an adequate supply of linen.

Postpone Enforcement of Surgical Gut Standards

On the recommendation of the Committee of Revision of the U.S.P. XII, the enforcement of the standards for surgical gut, which were announced in the Second Supplement to the U.S.P. XI, are postponed until Jan. 1, 1941.

These standards were to have become official on July 1, but because considerable stocks of surgical gut, conforming to the new Pharmacopoeial standards with respect to their diameter, tensile strength and sterility, but not labelled in accordance with the new official requirements, were still in the hands of dealers, the action to postpone enforcement was taken by the official Pharmacopoeial Committee.

New Laboratory Course for N. Y. Hospital Employees

Under the direction of the Division of Pathological Laboratories of New York City's Department of Hospitals, an in-service training course covering new developments in laboratory technique in bacteriology has been arranged for the benefit of 147 enrolled students. About two-thirds of the students are employed in the Department of Hospitals, the remainder being employees of the Department of Health and other City departments.

Analysis of Hospital Service

(*Continued from page* 14)

organization complete adjunct facilities must be available in the hospital itself with specialists controlling the departments.

The medical staff is an absolute essential in any hospital, and on the professional qualifications of its members will depend the extent to which the hospital is justified in offering its services. It is for this reason that the small hospital in the sparsely populated community can develop only to a limited degree.

Specialization is neither necessary nor possible in the small hospital nor must the community in which there are no specialists feel that it cannot, for that reason, establish a hospital which may serve the best health interests of the people. Such a small hospital will usually admit only patients suffering from the more common ailments which can be treated by the average general practitioner, but it will be found impossible to avoid the occasional admission of those whose diagnosis and treatment demand a high degree of medical knowledge and more elaborate facilities. It is essential, therefore, that the local practitioner limit himself to those diseases in his patients which are within his competence and for which the hospital can provide adequate facilities, sending the more complicated cases to the more complete hospital or, if that is impossible, bringing the specialist to the patient.

Medical staff requirements in the large and complete hospital are fixed by recognized standards. Specialists, or at least general practitioners of very great skill, must be available to treat all types of disease that may be admitted.

General Hospital Standards

For the purpose of this analysis of general hospitals the accepted standards of efficiency have been adopted and are as follows:

1. Approved hospitals—those approved by the American College of Surgeons;

2. Non-approved hospitals—those registered by the American Medical Association but not approved by the American College of Surgeons.

All approved hospitals have been inspected by the A.C.S. and are endorsed as having a medical staff, adjunct facilities, a physical plant, adequate equipment and a skilled personnel, all of which qualify them to treat the types of disease which they are willing to admit. The non-approved hospital is an ethical institution but it lacks some essential to

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adequate treatment of all types of disease which it may be forced to admit.

It is in the large number of non-approved hospitals that one of the greatest problems is encountered. In the approved hospital there is a systematized attempt to control the work done. In the non-approved there is no such attempt and, because of this fact, it may be a detriment rather than a help in safeguarding the best health interests of the community.

If the non-approved hospital will limit its service to those cases which are within the competence of its medical staff and the adequacy of its equipment, it will be of benefit to the community, but the lack of funds which prevents such an institution from meeting recognized standards together with the ambition and economic necessity of its medical staff furnish a great temptation to attempt treatment which should be carried on only in the larger and more complete hospital. This is particularly true of surgery.

There is, therefore, great necessity for proper control of the non-approved hospital as well as the approved.

Ownership and Control of General Hospitals

In the analysis of hospitals from the point of view of ownership and control, the simplest recognized classification is used — government, voluntary, and private.

Government hospitals include those owned and controlled by any governmental division or sub-division. Since hospitals operated by special departments of the Federal government have been eliminated, these include state, county, and city hospitals, maintained for the care of illness in general.

Voluntary hospitals are those owned and operated by groups of citizens other than those for which the governmental agency is responsible. They include the so-called community hospitals as well as those owned by church and fraternal organizations. Industrial hospitals are included because they are operated as general hospitals and are open to a section of the community that would be cared for in other voluntary hospitals if the industrial were not available. The essential point of distinction of the voluntary hospital is that it is operated not for profit.

Private hospitals are those owned and operated by an individual or corporation, the essential point of differentiation being that the profits, if any, may accrue to the individual or corporation which is also responsible for any loss.

Government hospitals are maintained primarily for the care of the indigent; voluntary hospitals admit both the indigent and those who are able to pay; private hospitals, as a rule, cannot admit those who are unable to pay for their care.

Support of the General Hospital

Patients admitted to hospital fall into three classes: pay, part pay, and free. The pay patient is the one who pays at least the cost of his hospital care; part pay patients contribute only a part of the cost of care, and free patients pay nothing. No accurate figures are available as to the proportion of admission in these three classes nor as to the amount of money collected from each; hence detailed consideration is impossible.

Among the hospital deficiencies listed by the Interdepartmental Committee are insufficient bed capacity, incomplete service, and inadequate financial support. Whether there is insufficiency of beds is open to debate but certainly there is often incomplete service and this is directly due to the inadequate financial support as shown by the following quotation from the report:

> "Fees collected from patients furnish 70 per cent of the income for non-profit hospitals, and for the proprietary group, 90 per cent. Endowments produce about 6 per cent of the income for non-profit hospitals. . . . Thus one may observe that most of the free and part pay service of voluntary hospitals must be accomplished by passing the cost on to patients who, through payment of overcharges, create the necessary reserve."

There is, however, ample evidence to show that the profit from paying patients cannot meet the deficit created by the cost of caring for the part pay and free and, since income from both endowment and benevolence is constantly decreasing, voluntary hospitals are being forced to reduce the amount of service to the indigent to the amount which the governmental agency can be persuaded to support.

The analysis which follows shows very clearly that existing hospital beds are not used as extensively as they could be and that, with few exceptions, they are adequate to meet all present needs if they could be made available.

The reason for this is generally recognized. The institutions included in the great voluntary hospital system must reserve a large proportion of their present surplus beds for possible income producing patients and, on the other hand, the same economic necessity prevents them from increasing the accommodation available for the care of those who would create a financial deficit.

It is a well known fact that it costs little more to treat a patient in a single or two-bed room than to treat the same patient in a ward. Hence, if governmental bodies would accept their responsibility of providing for the care of the indigent, many beds which are now empty could be utilized for the care of those who are at present denied adequate hospital and medical care. That this would be of economic value to the state is shown by the experience of several states which have found it good policy to support the care of indigent patients in voluntary hospitals.

Care of the Negro Population

That the Negro population receives inadequate medical and hospital care is generally acknowledged, but insufficient thought has been given to the solution of this problem.

This inadequacy of care is clearly shown by the report of a study made by E. R. Carney, president of the National Hospital Association.* He states that there are twelve million negroes in the United States. To provide care for these, 550 governmentally owned hospitals admit Negro patients and there are also 110 hospitals, of which 65 per cent are privately owned, "specifically set aside to help care for twelve million Negro Americans." In all these hospitals he lists 4,192 beds available for Negroes, a ratio of .03 per thousand.

The chief reasons for this inadequacy of provision for illness among the Negroes may be summarized as follows:

1. Color discrimination
   a. In many communities the Negro who is able to pay his way is not admitted.
   b. In many communities the part pay or free Negro patient is admitted to only a very limited part of the accommodations available.
2. There is a large percentage of poor among the Negroes and even where there is no color discrimination, lack of funds prevents the provision of adequate accommodation.

To avoid repetition in the subsequent parts of this analysis, it is therefore postulated that in every state in which there is any appreciable Negro population provision for their hospital care should be increased. This is in addition to any indication for improvement in service that may be stated.

*Later figures are being compiled and may necessitate correction.

Pharmacy, Laboratories & Special Departments

Developing a Physical Therapy Department In a Small Private Hospital

By MARY SMEAD
Chief Physical Therapist, Columbia Hospital, Milwaukee, Wis.

Before discussing the beginning, growth and early developmental stages of a physical therapy department in a small private hospital of 115 to 120 beds, I should like to go over some of the prerequisites to a demand for such a department.

In the first place, the call for treatment by physical therapeutic methods must, of course, originate from the staff physicians. There must be at least a few doctors who understand the value and application of physical therapy and who have the patients in need of such treatment.

Stimulus From Many Fields

An active orthopedic service often furnishes an excellent stimulus for the development of a physical therapy department but, of course, considerable demand for it may come from other fields. A variety of fields should be represented: orthopedic, neurologic and general surgery, gynecology, otolaryngology, dermatology, internal and general medicine. Around such a nucleus there is bound to be a healthy growth of demand.

The actual prescription for physical therapy in a small private hospital, unlike a county or state hospital, must be more or less in proportion to the financial ability of the patient to support the department. Where a majority of patients is well able to afford necessary physical therapy, either as private or compensation cases, the department should have a sturdy growth.

Patients must be educated to realize that physical therapy at the proper time not only shortens temporary disability, lessening the days of hospitalization, but also that it reduces a permanent disability and increases the ability of the patient to return to gainful occupation.

Before a department can be installed, a physician on the staff must be found to act as director, because the success of the department rests on his shoulders. He must have had special training in physical therapy and be available to the staff for consultation and also be available to guide the technician under him. Since he will judge the type of treatment best suited to the patient's condition and will outline the course of rehabilitation, it is important that he be not in competition with those doctors who refer patients.

It is unlikely that a small hospital will be able to support a full time director of physical therapy. A staff member who is apt to have the qualifications for the position, providing he has had training in physical therapy, is the radiologist. He is not in competition with those referring cases. He is available during the entire day. He has an understanding of the physics of electricity and mechanics. He is familiar with the history and x-ray examination of many active and potential cases in physical therapy. To the benefit of the patients, this man is often able to suggest treatment earlier than it might have been ordered, or where it might never have been ordered. He can be invaluable in making suggestions to the doctors, in making medical contacts for the patients, handling complaints, explaining matters to the patient, receiving salesmen and directing personnel.

Where these elements of staff, patient clientele, and director are to be found, the need for physical therapy will thrust itself upon the hospital.

For instance the evolution of a physical therapy department in one hospital probably began when considerable orthopedic work indicated sling suspension exercises and underwater exercises in a Hubbard tub. These were prescribed by the orthopedist and supervised by his nurse attendant who had taken physical therapy training following her nursing education. The treatments were carried out by the patients' nurses.

The potential director of the new department recognized the need for an efficient method of application of heat. A short wave diathermy machine was purchased and operated under his close supervision by the x-ray technicians. Passive vascular exercise and skin temperature determination tests were carried out by interns. Before long a definite need was felt for the correlation of all these services under one organization and a physical therapy technician was put to work.

It is to be emphasized here, as in any comment on physical therapy, that this technician must be well trained as defined by the standards of the Council on Medical Education and Hospitals of the American Medical Association.

Departmental Layout

Much has been written about the planning and outlay of an ideal physical therapy department. It is my object to show that worth while work can be done during the stages of anticipation and development of such a department.

In the early stages, considerable physical therapy can be practiced using comparatively little space for headquarters. The hospital previously mentioned has managed for three years with a hydrotherapy department—a Hubbard tub and a whirlpool bath—on the ground floor

The hydrotherapy tub in the physical therapy department of Columbia Hospital, Milwaukee.

and two small rooms with treatment tables on the fifth floor. Here, however, while adequate space is not available, the equipment is limited only by the space factor. A large percentage of treatments, of course, is given at the bedside.

In this department, the program of treatment is somewhat limited and is costly of the technician's time because of the inefficient layout.

The growth of the department is reflected in the number of patients treated. In 1936 the number was 263. Three years later the figure was more than doubled. In 1938 total treatments given were 6,625. In 1939 this number was increased by one thousand. Figures show the inefficiency of a department spread over floors but lacking in sufficient space. They also plot a rising curve that indicates the popularity of the treatments and the growing demand for the department.

Advantages of Bedside Treatment

There are certain advantages and even more disadvantages to bedside treatment. On the side of advantages is the fact that this method is less disturbing to the patient's routine, whether he is acutely ill, or irritated by many interruptions to his rest, or tied up in an orthopedic appliance, such as Russell traction. Most benefit may be derived from the treatment if a patient receives a minimum of interruptions to the rest that should follow it.

Unless there is an orderly to transport patients on schedule, it is often quicker, simpler and safer to take the equipment to the patient. One compensation for additional time spent in treating patients one at a time, instead of by twos and threes in an efficient department (and this is especially true in applying short wave diathermy where evaluation of dosage is difficult) is constructive criticism offered by or drawn from the patient during treatment. Thus he can be taught to derive fuller benefit from the treatment.

Disadvantages of Bedside Treatment

The chief disadvantage of this program is, of course, the inefficiency and time lost in single treatments and in traveling. Also, the technique of application of diathermy is limited by the presence of bed springs. Several of the good methods of applying the cable of the electro-magnetic field would induce too much heat into the wire coils of the bedsprings and mattress, causing danger of fire. When treatments are given in wards, other patients and their visitors may prove to be disturbing factors to the objective of relaxation. Some patients would prefer a change of environment and welcome the diversion of treatment in a location other than the all too familiar room.

In the long run, as the case load increases, this program must be done away with as much as possible since the disadvantage of time loss is insurmountable. This change involves a new or enlarged department.

Little can be said here on the selection and amount of equipment since such plans depend upon the type of hospital, the work done and the stage of development of physical therapy. In one hospital patients may be of such financial and social standing as to enable them to expect and support the best and most advanced treatment and equipment. This demands a very fully equipped department, but in a less affluent institution adequate work can be done with a minimum of equipment. It is generally agreed, however, that all equipment should be recommended by the Council on Physical Therapy of the American Medical Association.

Variation in Treatment Time

The time given for treatment in one hospital may contrast with that in another to allow for a certain amount of bowing and pampering, for more constant attendance, more thorough massage, extra pillows and a cool cloth on the brow.

In these cases the director is an important figure in restricting patients to acute cases and in weeding out the chronic and neurotic types in whom the habit of treatment is not desirable.

Records of each patient treated must be kept. As the personnel of the department increases, the records can be more detailed. In the early life of the department, the technician spends most of her time on the floors and it is impossible for her to record more than meager essentials. These may be listed on a card with such information as name, age, room or address, referring physician, diagnosis, detail of treatment which is entered daily, brief summary of history, progress and charges made. From these cards a cross file can be made as well as a monthly and an annual report. As soon as possible, daily records should be posted in the charts and, in the cast of out-patients, these should be sent at intervals to the referring physicians.

In this growing stage, truly adolescent in its clumsy set-up, the need for a more efficient department can be demonstrated to those in authority.

The quality of the work is, naturally, its own best advocate. Ward patients talk among themselves. If one receives physical therapy for his stiff arm and hand while another without treatment progresses much more slowly, the latter is apt to ask his doctor for similar treatment.

Actual benefit to a doctor's strained wrist, to an intern's sinus infection or to a nurse's lame back will help the department much more than a large amount of verbal instruction on the

subject. The doctor will probably become more aware of physical therapy, the intern will be more prone to note cases on his service where physical therapy might be indicated and to make suitable suggestions. The nurse will be more apt to know the proper terms for equipment and to follow treatments with appropriate aftercare.

Presentation in staff meetings by the physical therapy director of some new phase of physical therapy or perhaps of an especially exemplary case can help to show the work being done in fields in which the staff is interested.

All this promotion leads up to the time when sufficient space for a real department can be provided and a department built.

Presented at Tri-State Hospital Assembly, Chicago, Ill., May, 1940.

College of Radiology Has Professional Bureau

In 1937 the American College of Radiology started operation of a placement bureau in an effort to bring together those radiologists who were looking for locations and those hospitals and medical groups who were seeking radiologists. This bureau was started as an experimental venture in order to determine whether or not there was need for such a service.

At the recent annual meeting of the Board of Chancellors of the College it was deemed advisable to expand the activities of the placement bureau and make it a truly Professional Bureau. At the present time a full biography, including college and medical training, period of internship, and residency, is being compiled for all applicants. Each hospital, group or individual requesting a radiologist is asked to furnish detailed information pertaining to the nature of the practice. If a hospital, it is queried concerning size, population of the community, equipment, and other pertinent facts about its radiological department.

The applicants are requested to state whether or not they are diplomats of the Board of Radiology and to specify their period of training in order that it may be determined whether or not they are to be potential candidates for the Board examinations. The Professional Bureau accepts as applicants only those who have had sufficient training to be candidates for the Board or those who have been awarded certificates by the Board.

At the present time there are 88 approved radiological centers training one or more men. It is the plan that when a request is received that all applicants and the chief of the department in which each man received his training will be notified of the opening. The men are requested to write to the individual or institution for further information and also to furnish the credentials requested. This method of procedure is followed because of the fact that each opening calls for different requirements and by going over the credentials of the applicants the inquirers can select those whom they feel meet their particular needs. The Professional Bureau acts in an advisory capacity between the institution and the applicant and intends to make every attempt to obtain the additional information necessary for each party.

All hospitals, groups, clinics, or individuals seeking the service of a radiologist or an assistant in the radiological department are invited to communicate with Dr. S. W. Donaldson, Director of the Professional Bureau, American College of Radiology, 540 N. Michigan Ave., Chicago.

Dr. Griffith Appointed To Penn. Health Board

Dr. Ivor Griffith, dean of Pharmacy and professor of Theory and Practice of Pharmacy of the Philadelphia College of Pharmacy and Science, has been appointed to the Advisory Board of Health of the Commonwealth of Pennsylvania.

Dr. Griffith is the first pharmacist to be honored by appointment to this group. Other members of the Board include Dr. George Morris Piersol, of the Medical School of the University of Pennsylvania; Dr. David Thomas, Lock Haven, president of the State Medical Society of Pennsylvania; Dr. William G. Turnbull, head of the Philadelphia General Hospital; Dr. Donald Guthrie, chief of the Robert Packer Memorial Hospital, Sayre; and Archibald Nance, Pittsburgh engineer.

Vitamin A Meter

Photoelectric measurement of Vitamin A concentration in fish oils, such as cod liver, halibut or haliver oil, is accomplished by a new instrument recently announced by G-M Laboratories, Inc. This meter is said to provide a faster, more accurate and reliable method for making such measurements. Its design is based on the principle of the absorption of certain wave lengths of ultra-violet radiation by the Vitamin A.

WITH THE SUPPLIERS

Arthur **J. Cole,** vice president of Toastmaster Products Div. of McGraw Electric Company, Elgin, Ill., died June 10 as the result of a heart attack. Born in England in 1863, Mr. Cole came to this country as a boy and was early associated with Kohler Brothers Co. and Westinghouse Electric & Manufacturing Co. Joining the McGraw Electric Co. 25 years ago, he was made a vice-president of the firm and directed sales from headquarters in Sioux City, Omaha and St. Louis. In 1932, he was named Pacific Coast manager and since Jan. 1, 1940, has been connected with the Toastmaster Products Division of the company at Elgin, Ill.

•

Announcement of the establishment of an appliance manufacturing division was made this month by J. H. Cohen, president of Casco Products Corp., Bridgeport, Conn. Full production has already been started on one of the appliance product groups, electric heating pads. A. O. Samuels, former president of Samson-United Corp., Rochester, N. Y., is now affiliated with Casco Products Corp. as general manager of the new division. Assistant manager is Jack Schenberg, former director of merchandising of Samson-United.

•

Every graduate of the 60-odd pharmaceutical schools and colleges throughout the United States received a copy of the Pharmaceutical Recipe Book (Second Edition) at commencement exercises last month as a result of a special fund set up by the Owens-Illinois Glass Co. of Toledo, Ohio.

In a letter to the deans of the various schools announcing the presentation, W. T. Allen, sales manager of Owens-Illinois' Prescription Ware Division, said:

"This undertaking, which we believe will benefit your graduates, is one in which we feel a high privilege to participate. The Owens-Illinois Glass Co., through its long association with pharmacists and druggists throughout the country, feels that the acquisition of such a reference book can be of utmost aid to the graduate. It is planned to continue this distri-

bution of the Recipe Books to succeeding classes of graduates.

•

For the academic year 1940-41, Abbott Laboratories, North Chicago, Ill., has established fellowships in several universities with important departments of organic chemistry and biochemistry. The fellowships, carrying stipends of $650 per year, will be available to graduate students in the last or next to last years of graduate work leading to the doctorate degree. The object of the fellowships is to provide means for the carrying on of additional scientific work in American universities. Grants will be made as follows: In organic chemistry, to Cornell, Harvard, Illinois and Michigan; in biochemistry, to California, Columbia and Cornell.

•

The Hard Manufacturing Company of Buffalo, N. Y., which has for some years produced a line of hospital room furniture, has just opened a New York office and display room in order to serve the Metropolitan area more effectively with its expanded line. Beds, mattresses, overbed and bedside tables, dressers, armchairs and other items in varying styles and finishes will be shown. The office is at 23 E. 26th St.

•

James J. Birmingham has been named exclusive representative in the Metropolitan New York territory for the Super Ironer Co., St. Joseph, Mich., manufacturers of ironers, metal washers, open top extractors, and a new automatic flatwork folder recently put on the market. Mr. Birmingham's office is at 99 Wall St.

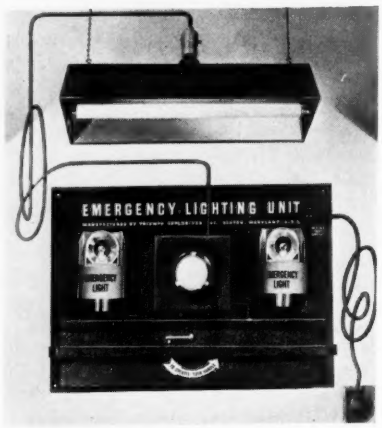
•

American Hospital Supply Corp., at Chicago, has announced the issuance of its new catalog of hospital equipment and supplies.

With an outstanding cover creation by one of Chicago's leading designers, American's catalog reflects the character of the field it serves. The catalog is printed in ten different colors and is indexed and arranged for instant reference to any of the 8,000 items included.

New Appliances and Equipment

Emergency Lighting Unit



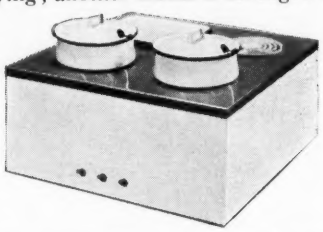
Triumph Explosives, Inc., has announced the development of a new emergency lighting unit, illustrated above. The unit consists of a panel which fastens to a wall and which is connected by wire to a light suspended in the room where illumination would be required in an emergency.

The panel consists of: a radium dial in the center; main battery of 48 cells similar to the standard type except that they are packed and sealed in a dry state and energized only by turning the handle which releases the activating fluid; two individual emergency lights which can be removed and carried to more distant corners of the room; and a switch for testing the light on 110V A.C. current without using the emergency battery. The light is a long fluorescent tube fitted into a reflector designed especially to give maximum illumination.

Food Service Cabinet

Shown above is a new electric food service cabinet recently developed by Herbert Brannon, Inc. The unit operates on dry electrical heat, and a uniform temperature is said to be maintained at all times as the heat wells are accurately controlled by dependable thermostats. By the use of dry heat, all corrosion is eliminated as well as unnecessary steam that permeates the surroundings.

The top of the cabinet is arranged for two 4-quart round insets, one 3½-quart rectangular inset and a surface burner unit for coffee maker or frying; another model is arranged for



three 4-quart round insets and a surface burner; and a third with four 4-quart round insets.

The unit is available in the following models: all-painted, painted cabinet and stainless top, painted cabinet and porcelain enameled tops, all porcelain enameled model, and an all stainless model.

New Safety Crib

The new crib shown above, which the Simmons Company has recently introduced in its hospital line, has several interesting safety features. The sides are built 26 inches above the fabric, as against 22 inches formerly, a further guard against a baby crawling or falling over the side. Also, the maximum opening between the fillers is 3 inches, which makes it impossible for babies to get their heads through it. In addition to the model illustrated, the crib is available

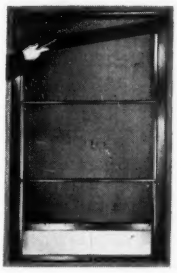
with various other bottoms, tilting, youth size with backrest, or plain.

Jacketed Water Bottle

Will Ross, Inc., has recently announced the development of a metal jacketed, glass lined water bottle. Three advantages of the bottle, according to the manufacturer, are: 1, it can be kept absolutely clean and sterile because the glass liner can be taken out and both liner and jacket easily washed or sterilized; 2, initial low cost and if the liner (a standard milk bottle) should be broken it is inexpensive and easy to replace; 3, its appearance.

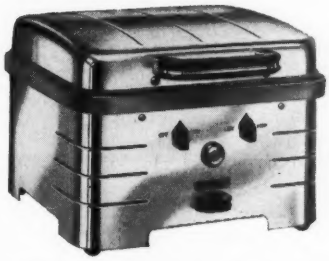
The metal jacket, which protects the liner against accidental breakage, unscrews at the center. This simplifies cleaning, provides adjustment to take up the variations in size found in milk bottles, and insures a tight, leak-proof fit between neck of jacket and top of bottle. It is not offered as a vacuum bottle, but because of its construction it does keep liquids hot or cold for an extended period.

Light-Tight Shade



Higgins Products, Inc., has recently developed a new light-tight shade for use where absolute light control is required, as in laboratories, classrooms, lecture and dark rooms. The shades are said to be photographically light-proof; they are adaptable to almost any size opening; neat, inconspicuous, instantly available, yet out of the way when not in use.

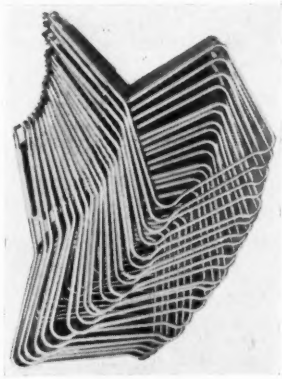
Toastwell Grills



Utility Electric Co. has recently introduced a new line of automatic grills to match its line of toasters, waffle bakers and food warmers. The new grill is said to be the first commercial appliance controlled with a mercury tube switch, which eliminates sticking of silver contacts. The mercury tube switch is controlled by a double thermostat, and is so located that it is not affected by high temperatures.

Another new feature is the single lever tilting feature which tilts both grids, preventing grease accumulation. The grill is also equipped with a self-locking hinge which automatically locks the upper grid at any desired height preventing crushing of toasted sandwiches.

Space-Saving Furniture



A new line of all-welded, fire-resistant, space-saving furniture has been introduced by Swan Engineering Co., Inc. In the manufacture of these chairs, the tubing is bent into a special framework that telescopes completely. The all-welded construction seals openings against moisture and oxidation, eliminates squeaks and prevents parts becoming loose or lost.

The thinness of the seat and back design of the chairs permits close stacking; 100 chairs can be stacked in approximately 10 square feet.

Plumbing Fixtures

A new line of stainless steel plumbing fixtures, having rustproof, corrosion-resistant qualities has just been developed by The Schaible Foundry & Brass Works.

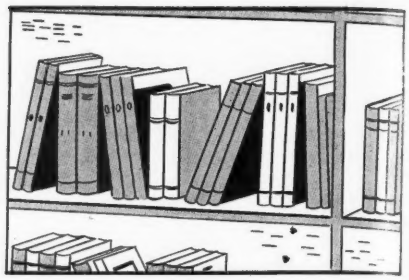
Made of Armco stainless steel, the new "Twin-Set" fixtures are available in two permanently durable finishes and in two units. One unit, consisting of faucets and spout, is called the "Twin-Set Three-in-Line." The other includes an insulated spray and is called the "Twin-Set Four-in-Line," shown above. Both combinations match in style, finish and material the "Twin-Set" basket-type sink strainer, which has no moving parts to get out of order. The new fixtures are designed to fit any make deck-type sink. They are easy to install from above the sink, having no lock nuts below or under the sink.

Fay Floor Machine

The Fay Company has developed a new Standard Model floor machine to meet a demand from hospitals, hotels, apartment houses and other large buildings for a heavy duty machine to scrub, wax, polish, steel wool and refinish large floor areas in a minimum length of time.

The machine is sturdily built and is powered with a ¾ horsepower motor that drives a brush 130 revolutions per minute with pressure on the brush of 130 pounds. It is equipped with a water solution tank to apply the scrubbing solution to the floor for scrubbing.

Suppliers' Library



Request to HOSPITAL MANGEMENT will bring these new folders and latest information about equipment and supplies. Ask for them by number for convenience.

No. 908. American Hospital Supply Corporation has announced this month the issuance of its new catalog. Beautifully printed in ten colors, it is indexed and arranged for instant reference to any of the 8,000 items included in its line of **hospital equipment and supplies.**

No. 907. Utility Electric Co. has issued literature on two new items in its line, the Toastwell **automatic combination grill** and the Toastwell **food warmer.**

No. 906. Roche-Organon, Inc., has for distribution small folders on the following items in its line: **Kolpon Inserts,** a vaginal application of the female sex hormone; **Progestin,** for the treatment of luteal hormone deficiencies; **Thyranon Injectable,** for use in the treatment of thyroid disorders; **Menformom Dosules,** cutaneous application of the female sex hormone; and **Doca,** for the hormone treatment of adrenal cortex deficiencies.

No. 905. United States Rubber Company has issued a 16-page booklet entitled "Why Hospitals Prefer Mattresses and Cushions of U. S. Royal Foam." Illustrated and described are the firm's **latex mattresses, pillows, operating table cushions, stretcher cushions, wheel chair cushions, bed rings** and **knee cushions.**

No. 904. A 12-page booklet, entitled "Less Noise," discusses the use of Celotex Corporation's line of **acoustical products.**

No. 903. **"The Hospital Handbook of Soaps, Cleansers, Germicides and Waxes,"** a 24-page booklet reprinting articles on floor maintenance by hospital authors, is available from the Adco Company.

No. 902. James L. Angle Furniture Co. has for distribution a series of mailing pieces on its **hospital room suites.** Each complete suite is illustrated in color.

No. 901. Abbott Laboratories has for distribution small folders on the following items in its line: **Sulfapyridine; Pentothal Sodium; Nicotine Acid; Vitamin B. Complex Tablets; Argental; Aminoacetic Acid;** and **Klotogen.**

No. 900. "A Major Contribution to Surgical Asepsis" is the title of a new booklet describing the Levernier portable **foot pedal soap dispenser,** recently issued by The Huntington Laboratories, Inc.

No. 899. A series of abstracts on **"Galvanic and Contractile Currents Therapy"** and literature describing the firm's galvanic and contractile currents generator is available from H. G. Fischer & Co.

No. 898. Elkay Mfg. Co. has issued a catalog featuring its "Sturdibilt" installations of **stainless steel cabinet sinks** and other kitchen units.

No. 897. A 24-page **"Venetian Blind Manual"** published by the Chicago Venetian Blind Co., includes the history and development of Venetian blinds, basic information on the design and construction of blinds, and instruction in the proper methods of measuring, ordering, and installing.

No. 896. A new porcelain enameled **medicine and surgical dressing wagon** is the subject of a mailing piece issued by The Toledo Porcelain Enamel Products Co.

No. 895. **General Refrigeration Corp.** has for distribution two new broadsides on its self-contained **portable air conditioners.**

No. 894. **Hydrotherapeutic equipment** is the subject of a 16-page catalog issued by the Standard Sanitary Mfg. Co.

No. 893. Physicians Record Co. has issued five new price lists: No. 1501-D on **Standardized Hospital Record Forms;** No. 1503-E on **Bound Record Books and Loose Leaf Systems;** No. 1519-B on **Medical Staff and Intern Records;** No. 1502-B on **Record Forms and Supplies for Schools of Nursing;** No. 1524-D on **Penn-Ward System of Hospital Accounting;** and No. 1518-C on **Hospital Indexes.**

No. 892. Gasway Corp. has issued a 4-page mailing piece on its **complete laundry unit** for hospitals, hotels and other institutions.

No. 891. A brochure on **designing new toilet rooms** or modernizing old ones has been issued by The Sanymetal Products Co. The brochure presents five types of partitions for washrooms in institutional, commercial, or industrial buildings.

No. 890. A revised and enlarged edition of the publication, **"Handbook of Current Practices in Operating Oxygen Therapy Equipment,"** containing the latest information on the administrative details of oxygen therapy, has been published by The Linde Air Products Co.

No. 889. West Disinfecting Co. has issued a folder announcing its new odorless disinfectant, **"Showersan,"** designed as an aid in the prevention of Athlete's foot.

No. 888. A 66-page catalog has been issued by Metropolitan Wire Goods Corp. describing and illustrating its complete lines of Metro **wire utensils and baskets** and Sani-Stack **cup, glass, plate and bowl racks.**

No. 887. Benjamin Electric Mfg. Co. has for distribution a 46-page handbook and data bulletin on **fluorescent lighting.**

No. 886. As in former years, the July mailing piece issued by Will Ross, Inc., offers choice items of standard merchandise on its "birthday sale." Included are descriptions and samples of **mattress pads, diaper cloth, draw sheets, bath and huck towels, birch applicators and tongue blades.**

No. 885. **"Modern Maintenance"** is the subject of a new 48-page catalog published by Hillyard Chemical Co. Included are descriptions of and suggested uses for the firm's complete line of maintenance products — cleaners, finishes, seals, waxes, floor dressings, soaps, etc.

No. 884. A new safety double-acting **over-bed table** is described in a mailing piece issued by the James L. Angle Furniture Div. of Carrom Industries, Inc.

No. 883. Bulletin No. 2345, issued by The Permutit Company, illustrates and describes the firm's new oscillating type **dry chemical feeder for conditioning water.**

No. 880. Multi Products has issued a small folder on its new **"Airfoam" pillow,** made of cellular latex.

No. 879. A new 32-page catalog, issued by the Milwaukee Lace Paper Co., illustrates and describes the firm's line of **doilies, cake laces, tray covers, place mats,** etc.

No. 876. A new **chromium jacketed water bottle** is the subject of a new folder issued by Will Ross, Inc.

No. 875. **"Modern Catgut,"** a 30-page booklet recently published by Lewis Manufacturing Company, presents a discussion of certain chemical and physiological aspects of catgut sutures, with particular emphasis on factors that affect the absorption rate and the surgical reliability of the suture.

No. 871. The Davies-Young Soap Co. has for distribution two new pamphlets —one on "Buckeye" **liquid wet cleaner**

and one on the firm's **wet cleaning soap mixer.**

No. 870. Complete information on the new Triumph **emergency lighting unit** is contained in two mailing pieces issued this month by Triumph Explosives, Inc.

No. 869. **"The Uses of Elastic Adhesive"** and **"The Uses of Ace Adherent"** are titles of two pamphlets recently issued by Becton, Dickinson & Co. Also available are two descriptive pieces on the B-D Yale Luer-Lock Syringe and the Asepto syringe.

No. 868. **"Hospital Service Book and Catalog No. 4,"** issued by Johnson & Johnson, describes and illustrates the firm's line of surgical dressings, sutures, orthopedic specialties, etc.

No. 867. A 24-page booklet, **"The Basis of Ultraviolet Therapy"** and complete descriptive literature on the Hanovia line of ultraviolet lamps for therapeutic use is available from the Hanovial Chemical and Manufacturing Co.

No. 866. Fixt Products has recently issued a new booklet titled **"76-Fixt Recipes"** for its prepared flour mixes. Also available is a mimeographed bulletin containing 104 **waffle recipes.**

No. 865. American Mat Corp. has for distribution several new pieces of literature on its lines of **"Ezy-Rug" floor matting,** "Amatco" corrugated matting, and "Air-Tred" matting.

No. 864. A 16-page booklet entitled **"Allergy Products,"** with recipes for use in wheat-free, egg-free and milk-free allergy diets, is available from Chicago Dietetic Supply House, Inc.

No. 863. Literature describing **Deknatel Surgical Nylon,** a new type of surgical suture, is available from J. A. Deknatel & Son, Inc.

No. 860. Norton Door Closer Co. has available a new catalog (No. 21) which illustrates and describes its complete line of **door controlling devices.**

No. 858. Citrus Concentrates, Inc. has a new folder on its pure **concentrated orange juice.**

No. 853. **"Washroom Facts,"** a 48-page handbook outlining the fundamental principles of good washing and their application to the special problems of the hospital laundry, has recently been published by Procter & Gamble. Also available is a small booklet on "Suggestions for the Use of Orvus," Procter & Gamble's **soapless soap.**

No. 852. **"The Fine Art of Making Tasty Salads and Salad Dressings"**—a 28-page booklet containing a number of recipes for salads and dressings—has recently been issued by Procter & Gamble, together with two small folders on the firm's Puritan oil.

No. 850. The new Guardian line of "Crutch-Eze"cushions and "Safe-T-Grips," **non-skid shock absorbers for crutches,** is described in a folder published recently by Guardian Latex Products, Inc.

No. 845. A folder has been made available by the Good-Lite Company describing its parallel beam **examination and operating headlight.**

No. 840. John Van Range Company has for distribution two new folders—one on "Van" **stainless steel and galvanized sinks,** and one on the firm's line of **steamers.**

No. 839. A new 48-page catalog issued by the Autosan Machine Division of Colt's Patent Fire Arms Mfg. Co. contains description and specifications of the firm's large line of **dishwashing machines.**

No. 838. New booklet recently issued by Metropolitan Wire Goods Company describes and illustrates the firm's complete line of Sani-Stack **cup, glass, plate, tray, silver, pot and bowl racks.**

No. 835. Imperial Brass Manufacturing Co. has for distribution a new folder on its line of **bronze signs and name plates.**

No. 824. New catalog published by Cleveland Range Co. describes and illustrates the firm's complete line of **steam cooking equipment.** Also available is a booklet entitled "Getting the Most From Steam Cooking, which contains valuable information on the commercial application of steam cooking.

No. 822. A booklet entitled **"A Scientific Method of Silencing Flush Valves,"** published by Imperial Brass Mfg. Co., contains description of the firm's new line of silent-action valves.

No. 821. Super Ironer Corporation has issued Bulletin HFN describing and illustrating its three **new automatic folders**—a single-purpose folder for large articles, a single-purpose folder accommodating up to six lanes of small pieces, and a combination folder capable of handling all sizes of flatwork.

No. 819. A complete line of **food conveyors,** tray conveyors, tray service and dish trucks, kitchen and special trucks, together with accessory equipment, are illustrated and described in a 20-page catalog, issued recently by S. Blickman, Inc.

No. 816. A 104-page catalog on **fracture appliances** and their application has been published this month by DePuy Manufacturing Co. The book contains practically any appliance required in the treatment of fractures and shows how to use them.

No. 814. **"A Suggested Standard Nursery Technique for the Routine Care of the Newborn in the Nursery"** is the title of a new 16-page booklet issued by The Mennen Company.

No. 813. Applegate Chemical Co., makers of **indelible inks and linen markers,** have for distribution a small 12-page catalog and list price. Included is a description of the firm's linen marking system.

No. 809. "The Heart of a Hospital"—a 16-page manual describing the Curran system of **hospital accounting**—has been published by the Con. P. Curran Printing Company. A complete set of sample **clinical records** is also available for distribution.

No. 797. Now available from The Tablet & Ticket Co. is a 36-page catalog illustrating and describing the firm's complete line of **changeable letter signs.** Price list is included.

No. 788. Literature on Buckeye **surgical soap** and details regarding a free offer of a soap dispenser are available from the Davies-Young Soap Co.

No. 757. Fixt Products has recently issued two small pamphlets in which are featured two of the company's products **—Fixt waffles and griddle cakes.**

No. 748. The features and uses of **Lysol disinfectant** are described in a new leaflet recently issued by Lehn & Fink Products Corporation.

No. 687. All types of **floor matting** and the correct application of each one in the hospital field are discussed in detail in a new catalog published by the American Mat Corp. The various ernization, cleaning costs, and comfactors which induce the installation of floor matting—safety, sanitation, modfort—are also discussed.

No. 668. **"Lighting in the Surgery,"** a new catalog of surgical lighting equipment, has been published by the American Sterilizer Company.

No. 518. **"A Complete System of Medical Records for the Hospital."** A new booklet presenting a check-list of approved forms which comprise the clinical chart of the patient; also those which are used in the admitting, accounting and other departments to form a complete system. Prepared by the Physician's Record Company.

No. 441. **"Sanitation Products for the Hospital."** A complete catalogue of Surgical and Baby Soaps and their dispensers, Baby Oil, Disinfectants, Floor Finishes, Floor Waxes, Furniture Polish, and other Hospital and Institutional supplies. The Huntington Laboratories.

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908	901	894	887	876	866	852	824	797
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906	899	892	885	871	864	845	821	757
905	898	891	884	870	863	840	819	748
904	897	890	883	869	860	839	816	687
903	896	889	880	868	858	838	813	668
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SCHOOLS approved for the Training of Medical Record Librarians are: Grant Hospital, Chicago, Ill.; St. Joseph's Hospital, Chicago, Ill.; Massachusetts General Hospital, Boston, Mass.; St. Mary's Hospital, Duluth, Minn.; Rochester General Hospital, Rochester, N. Y.; The Samuel Merritt Hospital, Oakland, Calif.; Medical Record Librarians wishing to review salient factors in record library methods may make application for short courses.

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